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Evaluation of Minerals Policy Statements

Volume 2: Appendices

Minerals and Waste Programme

Commissioned Report CR/10/044N

BRITISH GEOLOGICAL SURVEY

MINERALS AND WASTE PROGRAMME
COMMISSIONED REPORT CR/10/044 N

Evaluation of Minerals Policy Statements

Volume 2: Appendices

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Appendix 2 Minerals 'policy' and 'guidance' separation

MPS1: PLANNING AND MINERALS - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
5	Introduction The policies in this statement should be taken into account by regional planning bodies (RPBs) in the preparation of Regional Spatial Strategies (RSS), by the Mayor of London in relation to the Spatial Development Strategy for London, and by MPAs and local planning authorities (LPAs) in the preparation of local development documents (LDDs) and any development plans which are being taken forward to adoption under transitional arrangements. The policies in this statement will also be important to the minerals industry and all other interested parties. They are material to decisions on individual planning applications and if reflected in a LDD and RSS, will form part of the statutory Development Plan. Where these policies are not reflected adequately in forward planning, or taken sufficiently into account in relevant development control decisions, the Secretary of State may use her powers of direction to seek changes to the documents or may intervene in the consideration of planning applications.	
7	The sequence in which objectives and policies appear in the following sections does not necessarily reflect their degree of importance.	Not policy but must be tied to policy document
9	National objectives for minerals planning The Government's objectives for minerals planning reflect the requirement to contribute to the achievement of sustainable development, as required by Section 39 of the Planning and Compulsory Purchase Act 2004. These are: • to ensure, so far as practicable, the prudent, efficient and sustainable use of minerals and recycling of suitable materials, thereby minimising the requirement for new primary extraction; • to conserve mineral resources through appropriate domestic provision and timing of supply; • to safeguard mineral resources as far as possible; • to prevent or minimise production of mineral waste; • to secure working practices which prevent or reduce as far as possible, impacts on the environment and human health arising from the extraction, processing, management or transportation of minerals; • to protect internationally and nationally designated areas of landscape value and nature conservation importance from minerals development, other than in the exceptional circumstances detailed in paragraph 14 of this statement; • to secure adequate and steady supplies of minerals needed by society and the economy within the limits set by the environment, assessed through sustainability appraisal, without irreversible damage; • to maximise the benefits and minimise the impacts of minerals operations over their full life cycle; • to promote the sustainable transport of minerals by rail, sea or inland waterways; • to protect and seek to enhance the overall quality of the environment once extraction has ceased, through high standards of restoration, and to safeguard the long-term potential of land for a wide range of after-uses; • to secure closer integration of minerals planning policy with national policy on sustainable construction and waste management and other applicable environmental protection legislation; and • to encourage the use of high quality materials for the purposes for which they are most suitable.	National objectives fundamentally underpin national policies Objectives flow through into actual policies
10	National policies for minerals planning To achieve the objectives and measures set out above, RPBs, MPAs and LPAs should carry out their functions in relation to the preparation of plans and in relation to development control, in accordance with the national policies for minerals planning set out below:	
11	Exploration: • consider carefully applications for mineral exploration in order to avoid or minimise any resultant adverse impacts on the environment.	
12	Survey: • use the best available information on mineral resources within their areas and consider the social, environmental and economic benefits and constraints of working them; • undertake regular assessments of the reserves for which planning permission has been granted for all mineral workings in their areas, taking into account the need for, distribution, production and uses of, each type of mineral, while maintaining mineral operators' reasonable needs for commercial confidentiality;	

	• assess the range, volumes and availability of waste material which may exist within reasonable proximity and which could provide suitable alternatives to primary minerals.	
13	Safeguarding: • define Mineral Safeguarding Areas (MSAs) in LDDs, in order that proven resources are not needlessly sterilised by non-mineral development, although there is no presumption that resources defined in MSAs will be worked; • encourage the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in MSAs; • in unitary planning areas, define MSAs in LDDs to alert prospective applicants for non-minerals development to the existence of valuable mineral resources; • in two-tier planning areas, include policies and proposals to safeguard mineral resources within MSAs in county LDDs and show MSAs in district LDDs. Counties should define Mineral Consultation Areas (MCAs) based on their MSAs. MCAs should also be reflected in district LDDs. Where a planning application is made for non-mineral development within a MCA, the district should consult the county on the application; • district councils responsible for spatial planning of land defined in MSAs should not normally include policies and proposals in their LDDs for non-minerals development in those areas, or sensitive development around safeguarded mineral areas, where such policies would affect the potential for future extraction of minerals; • safeguard existing, planned and potential rail heads, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals, particularly coal and aggregates, including recycled, secondary and marine-dredged materials; • identify future sites to accommodate the above facilities and reflect any such allocations in the LDDs of district councils in two-tier planning areas. District councils in these areas should not normally permit other development proposals near such safeguarded sites where they might constrain future use for these purposes; • safeguard existing, planned and potential sites including rail and water-served, for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material. Where appropriate, identify future sites for these uses and reflect any such allocations in the LDDs of district councils in two-tier planning areas.	
14	Protection of heritage and countryside: • where minerals development is proposed within, adjacent to, or where it is likely to significantly affect a *European site* (potential and classified Special *Protection Areas*, candidate and classified *Special Areas of Conservation* and listed *Ramsar Convention Sites*), take account of the advice contained in PPS9 and the accompanying joint ODPM/Defra Circular; • do not permit major mineral developments in *National Parks, the Broads, Areas of Outstanding Natural Beauty* and *World Heritage Sites* except in exceptional circumstances. Because of the serious impact that major mineral developments may have on these areas of natural beauty, and taking account of the recreational opportunities that they provide, applications for these developments should be subject to the most rigorous examination. Major mineral development proposals should be demonstrated to be in the public interest before being allowed to proceed. Consideration of such applications should therefore include an assessment of: i the need for the development, including in terms of national considerations of mineral supply and the impact of permitting it, or refusing it, upon the local economy; ii the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need for it in some other way; iii any detrimental effect on the environment, the landscape and recreational opportunities and the extent to which that could be moderated. Planning authorities should ensure that for any planning permission granted for major mineral development in these designated areas, the development and all restoration should be carried out to high environmental standards, through the application of appropriate conditions, where necessary, and be in character with the local landscape and its natural features. Proposals in these areas which are not considered to be major mineral developments should be carefully assessed, with great weight being given in decisions to the conservation of the natural beauty of the landscape and countryside, the conservation of wildlife and the cultural heritage and the need to avoid adverse impacts on recreational opportunities. • do not normally grant planning permission for a proposed mineral development on land within or outside a *Site of Special Scientific Interest* (SSSI), if it is likely to have an adverse effect on a SSSI (either individually or in combination with other developments); • ensure that the statutory protection given to many individual wildlife species under a range of legislative provision, and the special protection afforded to	

	European protected species, is fully taken into account when considering mineral proposals which might affect them; • consider carefully mineral proposals within or likely to affect *regional and local sites of biodiversity, geodiversity, landscape, historical and cultural heritage*; • note that while there is a general presumption against inappropriate development in the *Green Belt*, which should not be approved except in very special circumstances, mineral extraction need not be inappropriate development, nor conflict with the purposes of designating Green Belts. However, in permitting mineral developments in Green Belts, authorities should ensure that high environmental standards are maintained during operation, and that sites are well restored to after-uses consistent with Green Belt objectives. All mineral-related developments in the Green Belt should be assessed against the policies in PPG2; • adopt a presumption in favour of the preservation of listed buildings, nationally important archaeological remains (including scheduled ancient monuments) in situ, and their settings, if mineral proposals would cause damage or have a significant impact on them, unless there are overriding reasons of national importance for the development to proceed; • do not permit mineral proposals that would result in the loss or deterioration of ancient woodland, not otherwise statutorily protected, unless the need for, and benefits of, the development in that location outweigh the loss of the woodland habitat; • take account of the value that existing woodland offers in terms of amenity and habitat, when considering mineral proposals; • where significant development of agricultural land is unavoidable, seek to use areas of poorer quality land in preference to that of a higher quality, except where this would be inconsistent with other sustainability considerations. In order to achieve the intended after-use, a high standard of restoration would be required; • take account of the value of the wider countryside and landscape, including opportunities for recreation, including quiet recreation, and as far as practicable maintain access to land. Minimise the impact of minerals operations on its quality and character and consider the cumulative effects of local developments; • have regard to the positive or negative effects that minerals operations may have on rural communities and the extent to which adverse impacts of such operations could be moderated, but recognise that such developments can often also offer opportunities for these communities especially at the restoration stage.	
15	Supply: • identify at the regional level, those minerals which are of national and regional significance and include policies for them in RSS; • aim to source mineral supplies indigenously, to avoid exporting potential environmental damage, whilst recognising the primary role that market conditions play; • before considering the extraction of primary materials, take account of the contribution that substitute or recycled materials, mineral products and marine dredged aggregates would make to the supply of materials; • ensure the best integration of social, environmental and economic costs and benefits is achieved, through applying the principles of sustainable development, by carefully considering how best to maintain an adequate and steady supply of minerals for the economy and society, commensurate with protecting the environment and securing the prudent use of natural resources, and set out policies to achieve this in RSSs and LDDs; • identify sites, preferred areas and/or areas of search, having taken account of environmental considerations, to provide greater certainty of where future sustainable mineral working will take place; • consider the benefits, in terms of reduced environmental disturbance and more efficient use of mineral resources including full recovery of minerals, of extensions to existing mineral workings rather than new sites; • take account of the benefit, including the reduction in carbon emissions, which local supplies of minerals would make in reducing the impact of transporting them over long distances by road; • recognise the important role that small quarries can play in providing historically authentic building materials in the conservation and repair of historic and cultural buildings and structures; • where extraction of more than one mineral from a site is proposed, consideration should be given to any relevant planning guidance specific to each mineral; • provide for the maintenance of landbanks, i.e. appropriate levels of permitted reserves, for non-energy minerals as far as is practicable from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage sites; • enable the minerals industry, so far as is practicable, to secure productivity growth and high and stable levels of employment, which are central to long-term economic performance and rising living standards.	
16	Bulk transportation: • seek to promote and enable the bulk movement of minerals by rail, sea or inland waterways to reduce the environmental impact of their transportation; • promote facilities at ports and rail links that have good communications inland, so that bulk minerals can be landed by sea and distributed from ports, as far as is practicable, by rail or water;	

	• safeguard and promote rail links to quarries where there is potential to move minerals by rail.	
17	Environmental protection: • seek to protect and enhance the character of surrounding rural and urban areas by careful planning and design of any proposals for minerals development; • encourage mineral operators to adopt sound working practices to prevent, where feasible, or if not to minimise, environmental impacts to acceptable levels during the preparation, working and restoration stages, including the provision of improved transportation within and from sites; • encourage mineral operators to incorporate and maintain good environmental management practices into their company procedures and apply them during the operation of their sites; • require mineral operators to seek and maintain effective consultation and liaison with the local community before submitting planning applications and during operation, restoration and aftercare of sites; • state the criteria to be used in assessing mineral proposals and in formulating planning conditions, to ensure that permitted operations do not have unacceptable adverse impacts on the environment or human health. MPAs should avoid unnecessary conditions or obligations that duplicate the effects of other more specific controls, in line with general guidance in PPS1; • ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations caused by mineral extraction are in conformity with national guidance and are controlled, mitigated or removed at source, so as to reduce to an acceptable level any potential adverse impacts on neighbouring land and property; • encourage the establishment of mineral site transport plans in consultation with the local community, dealing with matters including routing, off-site parking, considerate driving and complaints procedures; • consider in association with the Environment Agency, the potential for mineral developments, individually or cumulatively, to affect the flow, quality and quantity of surface and groundwater supplies and the water table, taking account of best available options in preventing leachate generation and water pollution; • ensure, in association with the Environment Agency, that in areas at risk of flooding, mineral extraction proposals do not have a significant adverse impact on flood flows or flood storage capacity. Operators should demonstrate that mineral working should not materially increase the risk of flooding at other properties or locations and, where practicable, should increase flood storage capacity; • ensure that proposals for mineral extraction and the storage and tipping of mineral wastes are designed, and appropriate monitoring procedures set up, to ensure that the operation and restoration of the site does not create land instability and help prevent pollution of soil, air, surface water and groundwater; • ensure that proposals for mineral extraction from coastal cliffs, beaches and dune systems do not adversely affect the stability of the coastal environment, increase the rate of coastal erosion or vulnerability to flooding, or affect sensitive habitats, landscapes or Heritage Coasts.	
18	Efficient use: • encourage the efficient use of all minerals and alternatives to them; • encourage high quality materials to be used for appropriate purposes, but taking account of the need to avoid undue delays to site reclamation; • minimise the amount of minerals waste produced in extraction, handling, processing and stockpiling; • maximise the potential for minerals waste to be used for recycling or in-site restoration, but if not required for these purposes and where practicable, identify a market for its potential use; • ensure, so far as practicable, the use of acceptable substitute or recycled materials in place of primary minerals.	
19	Restoration: • take account of the opportunities for enhancing the overall quality of the environment and the wider benefits that sites may offer, including nature and geological conservation and increased public accessibility, which may be achieved by sensitive design and appropriate and timely restoration; • consider the opportunities that sites may offer for the development of new woodland areas and for providing networks of habitats; • in order to avoid the possibility of mineral working resulting in dereliction, ensure land is reclaimed at the earliest opportunity and that high quality restoration and aftercare of mineral sites takes place through the provision of guidance on suitable or preferred after-uses and reclamation standards, and the use of conditions and legal agreements, as appropriate; • ensure proposals for restoration and aftercare of sites include details of appropriate phasing of progressive restoration, final landform and landscape and monitoring procedures; • develop a strategy for inactive sites with planning permission for future working, which are considered unlikely to be reactivated in the foreseeable future; • maintain or improve the Public Right of Way network around restored mineral sites as far as practicable; • do not seek or require bonds or other financial guarantees to underpin planning conditions, except as set out in MPG7; • where restoration of mineral workings is through landfill or to a wetland habitat, consult the owner or operator of civil and military aerodromes within 13km, in order to assess the likelihood of increasing the bird strike hazard;	

	• examine the merits of recycling mineral wastes for productive uses or using them for site restoration, in order to minimise the adverse impact that they could otherwise have on the landscape.	
	Annex 1: Aggregates	
2.1	Ancillary policy objectives for aggregates The main text of Minerals Policy Statement 1 (MPS1) sets out the Government's national objectives and planning policies for all minerals. Ancillary policy objectives for aggregates are: • to encourage the use, where practicable, of alternative aggregates in preference to primary aggregate; • to encourage the supply of marine-dredged sand and gravel to the extent that environmentally acceptable sources can be identified and exploited, within the principles of sustainable development; • to make provision for the remainder of supply to be met from land-won sand and gravel and crushed rock.	National objectives fundamentally underpin national policies Objectives flow through into actual policies
3.2	Provision for land-won aggregates a) Regional Planning RPBs should apportion the Regional Guidelines to the local authority level in collaboration with their constituent MPAs, taking account of technical advice from the RAWPs. The apportionment should be subject to sustainability appraisal, incorporating strategic environmental assessment.	
3.3	RAWPs will undertake annual monitoring of aggregates reserves and supply and will prepare commentaries on results, especially supply and demand, for the Department and the RPBs. Where necessary, RAWPs should liaise with the Regional Technical Advisory Bodies on planning for the management of wastes.	
3.4	RPBs must have regard to the current National and Regional Guidelines for Aggregates Provision in England, in preparing RSS. They should use the process of reviewing and revising RSS to update sub-regional apportionments. If a MPA notifies the RPB that it is unable to identify sufficient resources to meet the apportioned supply over the plan period at acceptable environmental cost, the RPB should consider the consequences for supply and demand within the region taking advice from the RAWP, and consulting the Department if there are likely to be national implications. A shortfall in one part of a region should, where practicable, be made up for elsewhere in the same region.	
3.5	The Secretary of State will, where appropriate, intervene in a RSS that does not take full account of the regional aggregates guidelines and of agreed sub-regional apportionments.	A clear instruction of procedure
3.6	b) Local Planning In preparing their LDDs, MPAs should make provision for the sub-regional apportionment of the current National and Regional Guidelines for land-won aggregate in the approved RSS or, if there is not an approved RSS, as agreed by the RPB and endorsed by the Secretary of State.	
3.7	Provision should take the form of specific sites, preferred areas and/or areas of search identified in LDDs. An approach to this work is set out in the MPS1 Practice Guide. Specific provision may need to be made for aggregates that meet particular or demanding specifications, such as those for high polished stone value, building or asphalting sand.	The significance of these various sites is important to mineral provision and in planning terms
3.9	It is important that, once identified, the main options considered for making the agreed provision are subject to sustainability appraisal before leading to a preferred option in LDDs.	
3.11	The Secretary of State will, where appropriate, intervene in the preparation of LDDs where MPAs do not pay due regard to the agreed apportionment.	A clear instruction of procedure
4.1	Landbanks MPAs should use the length of the landbank in its area as an indicator of when new permissions for aggregates extraction are likely to be needed. The landbank indicators are at least 7 years for sand and gravel and at least 10 years for crushed rock. A longer period may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets, and productive capacity of permitted sites. A landbank below these levels indicates that additional reserves will need to be permitted if acceptable planning applications are submitted. Because individual sites, when permitted, need sufficient reserves to be economically viable, consideration of the landbank needs to be flexible enough to allow for this. A large existing landbank bound up in very few sites should not be allowed to stifle competition.	
4.2	MPAs should consider and report on the need to review policies in their LDDs as part of their annual monitoring report to the Secretary of State. This should be done in time to allow for action before the remaining provision falls below the agreed apportioned level. If review and updating take place regularly then maintaining a landbank beyond the end of the plan period is not an issue.	
4.3	If, taking all of these matters into account, existing landbanks are judged by a MPA to be excessive: • new planning permissions should only be given where it can be shown that demand could not be met from the existing permitted reserves, for example, for reasons of type and quality of the aggregate and/or distance to the market; • the industry should consider voluntarily agreeing to revocation, or prohibition orders, in respect of planning permissions at sites that are unlikely to be worked again.	

4.4	MPAs should carry out, in consultation with the RAWPs and other relevant bodies, and publish the results of, regular reviews of sites that have not been worked for 10 years or more, to assess whether production is likely to begin again. Sites that individual operators agree are unlikely to be worked again should be excluded from the landbank calculation, and they should be made subject to prohibition orders to remove the possibility that subsequent changes in ownership could unexpectedly revive development proposals.	
4.5	Where there is a distinct and separate market for a specific type or quality of aggregate, for example high specification aggregate, asphalting sand, building sand or concreting sand, separate landbank calculations and provisions for these may be appropriate.	
5.1	Alternatives to primary Aggregates It is Government policy to encourage the greatest possible use of alternatives to primary aggregates. The National and Regional Guidelines for Aggregates Provision in England set a target that will be reviewed annually and revised when necessary…	
5.2	Where mineral or other wastes suitable for use as aggregates have been deposited in tips, without the benefit of planning permission for future use, and these have re-vegetated and blended into the landscape, any applications for working of these materials should be dealt with in the same way and, if permitted, worked to the same standards as a successful new application for primary mineral extraction.	
6.1	Marine sand and gravel It is Government policy to encourage the supply of marine-dredged sand and gravel to the extent that environmentally acceptable sources can be identified and exploited, within the principles of sustainable development…	
7.1	Borrow pits …Identifying, assessing, operating and restoring borrow pits should be undertaken to the same standards as those for long-term mineral workings and should be subject to similar levels of consideration of environmental impacts.	
	Annex 2: Brick Clay	
2.1	Ancillary policy objectives for brick clay The main text of MPS1 sets out the Government's national objectives and planning policies for all minerals. Ancillary policy objectives for brick clay are: • to maintain and enhance the diversity of brick clay produced by making appropriate provision for supply in mineral planning authorities' (MPAs) local development documents; • to provide and make available brick clays at a level that reflects the high initial investment in, and high levels of capital expenditure required to maintain and improve, new and existing brick-making plant and equipment; and • to safeguard and where necessary, stockpile supplies of clays, especially specific "premium" brick clays such as those from the Etruria Formation and fireclay.	National objectives fundamentally underpin national policies Objectives flow through into actual policies
3.1	Policies for brick clay provision a) Safeguarding of brick clay resources MPAs should ensure that brick clay resources are safeguarded in accordance with MPS1. Some types or qualities of brickclay that have desirable properties, especially Etruria Marl and fireclay, are nationally, regionally or locally scarce. Relevant MPAs should safeguard acceptable sources of Etruria Formation clays and fireclays from other types of development and should, where practicable, encourage prior extraction of clay where built development is planned.	
3.2	b) Supply of brick clay It is generally desirable that brick clay should be extracted as close as practicable to the brickworks that it is supplied to. MPAs should initially consider the potential for extraction of brick clay close to the works and the potential for extensions to existing planning permissions to maintain supplies. Where supply is needed from more distant sources these may exist in a MPA's area other than that where the brickworks is located. The relevant local planning authorities (LPAs) should therefore liaise in planning for appropriate sources of provision. Where a works is likely to require supplies from more than one region, the relevant Regional Planning Bodies should assist in the necessary discussions.	
3.3	MPAs should have regard to the need for clay supply for local use and repair of heritage buildings to meet the objectives of PPS1, and should assess the potential for environmentally acceptable extensions to, and replacements for, such sites. Policies should be proportionate to the levels of potential impacts.	
3.4	c) Planning considerations When developing planning policies and considering planning applications, MPAs and LPAs should take account, as appropriate, of: • the need for provision of brick clay from a number of different sources to enable appropriate blends to be made. Where materials for blending need to be supplied from various sources, or for some types of clay that are used in small quantities for blending, it may be necessary to hold stocks of such clay at the brickworks or elsewhere; • the need to provide a stock of permitted reserves to support the levels of actual and proposed investment required for each new or existing manufacturing plant and the maintenance and improvement of existing plant and equipment. This will normally be sufficient to provide for 25 years of production. Separate provision may be needed for particularly scarce clays, such as Etruria Marl and fireclay, that will serve a number of works, sometimes over long distances;	

	• the need to meet the likely level of demand for clay at each manufacturing plant, part or all of which may sometimes have to be fulfilled from another MPA area, to avoid having to meet unforeseen demands in environmentally damaging ways; • in some cases, the scope to use negotiated planning agreements to restrict, if necessary, the use of the clay extracted for brick making to the associated brickworks in order to reduce environmental impacts; and • the need to recognise the potential for sales of clay for other uses, particularly engineering purposes, such as lining, daily cover and capping material for landfill sites, the lining of canals, lakes and ponds, as construction fill or as bulk fill suitable for roadway construction or for the manufacture of lightweight aggregate or cement. In some cases, clay pits may be operated mainly or wholly for these other purposes rather than for brick clay extraction.	
3.5	Where scarce reserves of Etruria Formation clays or fireclays cannot be used when extracted, consideration should be given to the potential for stockpiling the material on an environmentally acceptable site, either on or in the ground, until it is needed. Proper account should be taken of the environmental impacts that are associated with stockpiling sites when considering whether these should be provided.	
3.6	MPAs should encourage coal producers to make the best possible use of fireclay reserves including, where practicable, finding a market for any fireclay associated with the coal that is being extracted, so that it remains available for use rather than being replaced in the void during site restoration.	
3.7	Where a brickworks is supplied from a number of clay pits some distance from the works, impacts of road traffic between these and the works should, as far as possible, be minimised through off-road transport, such as field conveyor systems, dedicated haulage routes, and careful consideration of distribution networks and vehicle routes.	
3.8	MPAs should liaise with the Environment Agency and LPAs to ensure that where planning conditions for manufacturing plant are necessary they should complement, not duplicate, conditions contained in IPPC permits.	
3.9	d) Efficiency of use The brick, clay pipe and clay tile manufacturing industry is encouraged to ensure that: • when clays are to be blended, the resulting blend should not contain a proportion of premium clays in excess of that needed for the specified use.	
	Annex 3: Natural building and roofing stone	
2.1	Ancillary policy objectives for building and roofing stone The main text of MPS1 sets out the Government's national objectives and planning policies for all minerals. Ancillary policy objectives for building and roofing stone are: • to encourage the reuse of building and roofing stone, where technically feasible, on the building undergoing repair (see this annex, the Aggregates Annex to MPS1, PPS10 and PPG15); • to assess the need for small-scale extraction of quantities of stone for the conservation and preservation of historic monuments, buildings and areas within the context of the requirement to protect areas of designated landscape, nature conservation and historical interest (see MPS1, PPS7, PPS9 and PPG15); • to enhance the overall quality of the environment once extraction has ceased, taking into account any benefits the site may have in terms of wildlife and geological conservation and safety, associated with public accessibility where possible and appropriate, and requirements for small quantities of stone that may have to be extracted for future restoration and conservation purposes (see MPG7 and PPS9).	National objectives fundamentally underpin national policies Objectives flow through into actual policies
3.1	Policies for building stone and roofing stone provision a) Safeguarding of building stone and roofing stone resources Regional planning bodies (RPBs) and the Mayor of London should set out policies in their Regional Spatial Strategies (RSSs) or the Spatial Development Strategy in London, for safeguarding nationally, regionally and locally significant building stone resources.	
3.3	Many important sources of building stone have been long disused, and would need a new planning application to be worked again. Important historic quarries should be safeguarded, as far as practicable, where it can be shown: • that the quarry was the original source of stone used in the construction of a historic building or monument; or • that the stone is technically compatible with material in the structure to be repaired; and • that stone from the quarry is, or will be, required for restoration or conservation purposes in the absence of viable alternatives.	
3.4	MPAs should consider whether small-scale extraction of building stone might be sustainable at, or close to, relic quarries, some of which have been designated in respect of industrial archaeology, wildlife and geological conservation, where small-scale extraction would contribute to repair of historic buildings without compromising the requirement to protect designated sites… …Any extraction and restoration proposals should have proper regard to the purposes of the designation both during and after extraction.	
3.5	Local planning authorities (LPAs) should notify Natural England and English Heritage when a development proposal is made which affects an old building stone source to provide an opportunity for its significance to be assessed.	
3.6	b) Supply of building stone and roofing stone for conservation and restoration purposes MPAs and LPAs should have regard to the local, regional and national need for certain building and roofing stones for the conservation and restoration of England's historic built environment where their use is specified:	

	• because of aesthetic or technical properties, particularly where English Heritage advises that stone used for restoration or conservation purposes must be a compatible match, usually from a similar lithological horizon as the stone that was originally used; • to help meet the objectives of PPG15.	
3.7	c) Supply of building and roofing stone for new building MPAs and LPAs should liaise on and have regard to the local, regional and national need for certain building stones for new construction, within the context of the RSS, where their use is specified because of: • proven durability; • aesthetic or technical properties, particularly where new construction is to take place in the midst of older buildings constructed of a certain stone; and • any design requirements set out in local design guides, planning policies and supplementary planning documents.	
3.8	Where an exact match of stone is not possible, potential alternative sources of supply, if any, should be considered.	
3.9	MPAs should, as far as is practicable, identify in their LDDs, quarries of importance to the built heritage, whether disused or active, and describe the approach to be taken to these in terms of minerals and other planning applications.	
3.13	d) Planning considerations …High quality stone suitable for building and/or roofing, particularly that which is scarce and may be required for future conservation work, should not be used for the production of aggregates where lower quality rock suitable for crushing would suffice.	
3.14	f) Restoration and after use of quarries MPAs, LPAs and minerals operators should consider carefully, in liaison with Natural England and English Heritage, the potential for partial restoration of building stone quarries before the expiry of planning permission for extraction. This should be linked, where practicable, to new opportunities for archaeological, geological, wildlife and industrial heritage conservation and education, but retaining, where practicable, the potential for future access to supplies of small quantities of stone that may be needed at intervals in the future for repair of the historic built environment for which the site in question is an appropriate source.	
	Annex 4 On-shore oil and gas and underground storage of natural gas	
3.1	Ancillary policies for on-shore oil and gas development The industry should make available to mineral planning authorities (MPAs) information on the extent of known reserves of oil and gas, its forward plans and any potential sites for exploration, appraisal or production that it is considering and for which it holds exploration or production licences. However, MPAs should note that much of this information may be commercially sensitive.	
3.2	a) Conventional oil and gas development (COG) … Regional Planning Bodies (RPBs) should set clear guidance and criteria for location of COG development sites within the areas that are licensed for oil and gas exploration or production. There should be no presumption in favour of consent for subsequent stages if an earlier stage be permitted, nor do possible effects of a later stage not yet applied for, constitute grounds for refusal of an earlier stage. MPAs should include policies in their local development documents (LDDs) that distinguish clearly between the three phases and should also identify any environmental and other constraints on production and processing sites, within areas that are licensed for oil and gas exploration or production, in those documents.	
3.4	**Exploration** *Seismic investigations* … PDRs should not be withdrawn without very good reasons.	
3.5	In all cases the industry should fully discuss its proposals with the local planning authorities (LPAs) and statutory agencies. MPAs and highway authorities should be informed of the intended route for the survey, and prior notification given to residents on the immediate survey route. In two-tier planning areas, where county councils are the MPAs, operators should also ensure that district councils are aware of the intended investigations, and their commencement dates. In the case of vibroseis surveys using the road network, operators should inform the police of the route and anticipated timing of their operations. MPAs should alert operators to particularly sensitive historic buildings and sites that may be affected. Routes and survey timings should be designed to ensure the protection of habitats and wildlife. Statutory bodies should be consulted as early as possible as part of this process.	
3.7	*Drilling* Policies should be drafted to ensure that each application to explore will be considered on its own merits, in accordance with the present guidance, and in relation to LDDs and any other relevant material considerations. These considerations should not include any hypothetical future proposal for development of the oil or gas resource.	
3.8	In submitting an application for drilling, the developer should indicate what knowledge has been gained from seismic investigations in selecting the well site, but should not be expected to provide a firm development programme before full appraisal has taken place. Policies should indicate that, subject to the effects on the environment being appropriately addressed and mitigated, and a satisfactory restoration and aftercare plan prepared, applications for exploration may be favourably considered.	
3.9	Where environmental or other conditions might preclude vertical drilling, MPAs should discuss with the industry the option of employing directional drilling.	

	LDD policies should make clear that this approach will be adopted and that careful consideration will be given to factors such as: • the need for night-time drilling for safety reasons; • locating sites to minimise visual intrusion; • controlling vehicular activity and vehicle routing; • controlling the disposal of mud and other drilling residue; and • controlling noise and light emissions from drilling rigs with particular reference to night-time operations.	
3.10	… Section 106 agreements should not duplicate planning conditions or conditions attached to the award of a licence by DTI.	
3.11	Because of the intrusive nature of drilling operations, policies should provide that these will not be permitted close to houses and other noise-sensitive properties unless noise levels from drilling and associated operations can be reduced to acceptable levels.	
3.12	Particular care should be taken about siting all types of oil and gas wells close to water supply wells or boreholes…	
3.13	**Appraisal** … As with all other forms of development, an application for an appraisal well must be considered on its merits. This consideration should take into account the long-term suitability of the site since such wells may subsequently be required for production purposes. The other factors listed above for exploration wells are equally relevant to appraisal wells. LDD policies should reflect this.	
3.14	**Production and distribution** … Gathering stations should not be sited where they would have unacceptable adverse environmental impacts.	
3.17	…Where possible, export terminals should be sited where they can feed into a long distance pipeline, or are connected to a railway or water transport, in preference to relying on road transport.	
3.21	b) Gas from coal seams and working **Coalbed methane (CBM)** MPAs should identify in their LDDs the extent of the coalfield with reserves at depths below the surface of between 200-1500m and of areas which are licensed for CBM by the Coal Authority. The LDDs should also list the principal constraints likely to affect any proposed production and processing sites within those areas.	
3.24	… Accordingly, LDD policies should indicate that: • where initial proposals are environmentally acceptable and accord with the principles of sustainable development, planning permission might be granted for the initial hub of exploration wells, subject to their removal and restoration, if gas is not found in commercially viable quantities (or they are not needed to keep pumping water to protect production from an adjoining gas area); • this does not extend to the later approval of detailed schemes for production from those wells should the occasion arise; • options for the further development of the area should be presented for consideration in principle at the same time, to ensure that the immediate and potential longer-term environmental impacts of the development are understood by the MPA and that the applicant is aware of the risk of a subsequent refusal of planning permission; • further hubs of wells for the exploration, appraisal or later production phases will require separate applications and permissions on the same basis, supported where necessary by an environmental statement (or supplementary statement) related to the further development for which permission is sought; and • the industry should therefore discuss its proposals fully with the MPA well before a formal planning application is made, so that all the options and longer-term issues can be properly considered.	
3.25	**Methane from coal mines (Coal Mine Methane (CMM) and Abandoned Mine Methane (AMM))** … MPAs in coalfield areas should, therefore, encourage capture and use by including appropriate policies in their development documents.	
4.5	Underground storage of natural gas MPAs should consider whether there is a need for policies on underground gas storage in their LDDs on the basis of local geological circumstances. Where appropriate, MPAs and LPAs should collaborate in developing these policies, and areas where there might be potential for such storage should be indicated in their LDDs.	

MPS1: PLANNING AND MINERALS - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
1	Introduction Minerals are essential to the nation's prosperity and quality of life, not least in helping to create and develop sustainable communities. It is essential that there is an adequate and steady supply of material to provide the infrastructure, buildings and goods that society, industry and the economy needs, but that this provision is made in accordance with the principles of sustainable development. In order to secure the long-term conservation of minerals it is necessary to make the best use of them. This can be achieved by adopting a hierarchical approach to minerals supply, which aims firstly to reduce as far as practicable the quantity of material used and waste generated, then to use as much recycled and secondary material as possible, before finally securing the remainder of material needed through new primary extraction. Minerals development is different from other forms of development because minerals can only be worked where they naturally occur. Potential conflict can therefore arise between the benefits to society that minerals bring and impacts arising from their extraction and supply. Minerals planning aims to provide a framework for meeting the nation's need for minerals sustainably, by adopting an integrated policy approach to considering the social, environmental and economic factors of doing so and securing avoidance or appropriate mitigation of environmental impacts where extraction takes place.	
2	Minerals Policy Statements (MPSs) set out the Government's national planning policies for minerals planning in England. These complement, but do not replace or overrule, other national planning policies, and should be read in conjunction with other relevant statements of national planning policy. MPS1 sets out the Government's key overarching policies and principles which apply to all minerals.	
3	The MPS has four annexes which focus on matters specific to four sectors of the minerals industry, namely, aggregates; brick clay; natural building and roofing stone; and onshore oil and gas. The annexes have equal status to, and should be read in the context of, core policy in MPS1. For matters which relate to recycling, mineral planning authorities (MPAs) should read MPS1 within the context of the national *Waste Strategy* and Planning Policy Statement (PPS) 10: *Planning for Sustainable Waste Management*. A range of minerals other than those dealt with in the annexes are worked in England. Many of these are economically important. Appropriate provision for the supply of these is important even though specific guidance is not provided.	
4	MPS1 replaces Minerals Planning Guidance (MPG) Note 1: *General Considerations and the Development Plan System*, published in 1996, which is hereby cancelled. The annex on aggregates completes the replacement of MPG6: *Guidelines for Aggregates Provision in England*. The annex on onshore oil and gas replaces DOE Circular 2/85 *Planning Control over Oil and Gas Operations*. MPG6 and DOE Circular 2/85 are therefore also hereby cancelled. MPS2: *Controlling and Mitigating the Environmental Effects of Minerals Extraction in England* and its two annexes on dust and noise, published in March 2005, replace MPG11: *Control of Noise at Surface Mineral Workings* and part replace MPG2: *Applications, Permissions and Conditions* and MPG3: *Coal Mining and Colliery Spoil Disposal*. The table at the end of this statement, sets out the current status of individual MPGs. Until replaced, all extant MPGs, which have equivalent status to MPSs, should be read in the context of MPS1 and MPS2.	
6	An accompanying Guide offers advice and examples of good practice to stakeholders on the implementation of policies in MPS1.	
8	The Government's UK strategy for sustainable development, *Securing the Future*, published in March 2005, set out how the goal of sustainable development should be pursued by Government, businesses and individuals in an integrated way to provide: • an economy that delivers high levels of employment; • a society that promotes sustainable communities; • the protection and enhancement of the physical and natural environment; and • the efficient use of resources and energy. The policies in this statement endeavour to ensure that minerals planning contributes to the achievement of these four aims of sustainable development.	

19 Restoration:

Table

MPG Number and Title	Status
MPG1: General Considerations and the Development Plan System.	Replaced by MPS1.
MPG2: Applications, Permissions and Conditions. The rest remains in force.	Part replaced by Annexes 1 and 2 of MPS2.
MPG3: Coal Mining and Colliery Spoil Disposal.	Paragraphs C10 to C15 in Annex C replaced by Annex 2 of MPS2. Paragraphs C20 to C24 in Annex C replaced by Annex 1 of MPS2. The rest remains in force.
MPG4: Revocation, Modification, Discontinuance, Prohibition, and Suspension Orders – Town and Country Planning (Compensation for Restrictions on Mineral Working and Mineral Waste Depositing) Regulations 1997.	Remains in force.
MPG5: Stability in Surface Mineral Workings and Tips.	Remains in force.
MPG6: Guidelines for Aggregates Provision in England.	Replaced by MPS1, the MPS1 Annex on the supply of aggregates, and the current National and Regional Guidelines for Aggregates Provision in England 2001-2016.
MPG7: The Reclamation of Mineral Workings.	Remains in force.
MPG8: Planning and Compensation Act 1991: Interim Development Order Permissions (IDOs) – Statutory Provisions and Procedures.	Remains in force.
MPG9: Planning and Compensation Act 1991: Interim Development Order Permissions (IDOs) – Conditions.	Remains in force.
MPG10: Provision of Raw Material for the Cement Industry.	Remains in force.
MPG11: The Control of Noise at Surface Mineral Workings.	Replaced by Annex 2 of MPS2.
MPG12: Treatment of Disused Mine Openings and Availability of Information on Mined Ground.	Replaced by Annex 2 of PPG14.
MPG13: Guidelines for Peat Provision in England, including the place of alternative materials	Remains in force.
MPG14: Environment Act 1995: Review of Mineral Planning Permissions.	Remains in force.
MPG15: Provision of Silica Sand in England.	Remains in force.

Annex 1: Aggregates

1.1 Introduction

This annex sets out Government planning policy on the provision of construction aggregates in England. Aggregates here include land-won sand and gravel and crushed rock, marine-dredged sand and gravel and alternative, including recycled, materials supplied or used as aggregate.

3.1 Provision for land-won aggregates

The Department publishes at intervals National and Regional Guidelines for Aggregates Provision in England. These are intended to assist regional planning bodies (RPBs) and the Mayor of London in the timely preparation and revision of Regional Spatial Strategies (RSSs) or the Spatial Development Strategy in London, and mineral planning authorities (MPAs) in the preparation of local development documents (LDDs) in a way that addresses effectively the geographical imbalances between supply of, and demand for, aggregates at national level. These imbalances lead to the need to maintain a mixture of sites that variously contribute to meeting local, regional or national demands. The Guidelines are monitored and reviewed annually by the Department, with the assistance of Regional Aggregates Working Parties (RAWPs), and will be updated when necessary.

3.8 b) Local Planning

Sub-regional apportionments should not be regarded as inflexible. The preparation by MPAs of their LDDs provides an important opportunity to test the practicality and environmental acceptability of policy proposals at the local level. The provision to be made in each area will need to be justified in relation to other relevant

	considerations affecting planning for the area.	
3.10	If it is not possible for a MPA to identify sufficient resources in its area to meet the apportioned supply over the plan period at acceptable environmental cost, this should be reported to the RPB as soon as possible.	
5.1	Alternatives to primary Aggregates … Guidance on planning for waste management is contained in Planning Policy Statement 10.	
6.1	Marine sand and gravel …'Environmentally acceptable' in this context is in terms of both the natural and historic environments. Subject to this overriding consideration, it is assumed that marine dredging of sand and gravel is likely to continue to contribute to meeting part of the national and regional demand for aggregates at a proportion no lower than that of the recent past, currently about 8% of total demand for primary aggregates. The contribution made by marine-dredged sand and gravel will be monitored by the Department as part of the review of the aggregates guidelines.	
7.1	Borrow Pits Borrow pits can be a suitable way of providing material from local sources for individual major construction projects without the need to transport it over long distances…	
	Annex 2: Brick Clay	
1.1	Introduction This annex sets out Government policy for the supply of brick clay in England. 'Brick clay' refers to clay, shale and mudstone used in the manufacture of structural clayware, including bricks and associated products (such as clay roof tiles and pipes), and including materials known and recorded in official statistics as 'common clay', 'shale' and 'fireclay'. It also applies to brickearth and to clays used for environmental and engineering purposes such as lining, daily cover and capping at landfill sites, and the lining of canals, lakes and ponds. This annex does not apply to ball clay, china clay, or fuller's earth, or to the manufacture of ceramic tiles produced primarily from china and ball clay. For the purpose of this annex, brickworks include factories manufacturing clay roof tiles and pipes as well as bricks. It should be read within the context of policies in Minerals Policy Statement 1 (MPS1). Further information on 'brick clays' and associated industries is contained in the MPS1 practice guide.	Not policy but ultimately will need to be tied to policies for brick clay.
3.10	Policies for brick clay provision e) Liaison The brick clay extraction and brick manufacturing industries are encouraged to: • consult stakeholders, including MPAs and LPAs, the local community and, in respect of fireclay, coal producers, when developing medium and longer-term supply strategies for specific brickworks and to assist the planning process by providing the planning authorities with appropriate information, (if necessary on a commercially confidential basis) on reserves of clay, quality of clay, volume and type of products being produced, plans for developing the capacity of brickworks, and known areas of potential reserves that should be safeguarded. The industry is encouraged to supply sufficient data to MPAs, to support planning for provision of sufficient permitted reserves.	
	Annex 3: Natural building and roofing stone	
1.1	Introduction This annex sets out Government planning policy on the provision of natural building and roofing stone in England. 'Building and roofing stone' refers to natural stone products including: architectural masonry ('dimension' stone) and cladding, and stone required for the repair and maintenance of historic buildings and monuments. It also applies to slate roofing and stone roofing and to other uses of natural stone as detailed in the associated Minerals Policy Statement 1 (MPS1) practice guide, which also gives information on the nature of this industry. This annex should be read in conjunction with MPS1 and other relevant planning policy statements and guidance.	Needs to be tied to the policy statement.
1.2	The annex is relevant to applications for planning permission for mineral workings: • solely producing natural building and/or roofing stone; • producing natural building and/or roofing stone and other minerals as a by-product; or • primarily producing other minerals but which also produce building and roofing stone.	Needs to be tied to the policy statement.
2.2	Ancillary policy objectives for building and roofing stone Guidance on these objectives is provided in the documents indicated above. Social, economic and environmental benefits include the maintenance of traditional sources of building and roofing stone to encourage sustainable repair, maintenance and adaptation to new uses of the built environment, and the provision of often skilled employment in areas where other job opportunities may be limited.	
3.2	Polices for building and roofing stone provision a) Safeguarding building and roofing stone provision English Heritage and the industry are encouraged to make mineral planning authorities (MPAs) aware of important sources of building and roofing stone that they	

	consider should be safeguarded from other forms of development through policies in their local development documents (LDDs). Safeguarding will be most appropriate where stone is believed to be of suitable quality, and is: • scarce in terms of its technical properties and/or aesthetic characteristics; or • has been identified as having characteristics which match those required for repair and preservation purposes, including those related to individual, or groups of, culturally important buildings.	
3.4	…To that end, Natural England and English Heritage are encouraged to discuss the prospects for future working at specific important sites and to advise the relevant MPAs of their conclusions…	
3.10	d) Planning considerations MPAs and LPAs should take account, as appropriate, of: • the fact that many, but by no means all, building and roofing stone quarries are significantly smaller than aggregate quarries in terms of scale of operation, and their levels of potential impacts such as noise, vehicle movements and dust, rate of working and scale of impact on people and the environment. Policies and planning conditions should be appropriate and proportionate to the scale of proposed operations; • the need for a flexible approach to the potentially long duration of planning permissions reflecting the intermittent or low rate of working at many sites. Account should be taken of the long-term viability of any processing works, likely need for the stone, the long periods that can be taken for identifying sources of stone adequate for use in repair projects, and the factors relevant to investment in and life of processing works. In those instances where an identified type of stone or stone from a single source is required on a very small scale, the MPA might consider the use of very short-term permissions linked by agreement with the operator to a specific project or projects; • the scope for using, where appropriate, planning agreements to limit extraction to building or roofing stone purposes, rather than for other purposes such as aggregate production. This is particularly relevant where scarce types of stone, or stone used in the construction of a major historic building or monument, is available only from a single quarry or locality. To ensure sustainable use of resources, avoid in-quarry sterilisation of resources caused by the stockpiling of waste, and economic viability of the operation, it might be appropriate, in some cases, for modest aggregate production and processing of waste or overburden material to take place. The overriding purpose should nevertheless be to facilitate long-term availability of the building or roofing stone resource. If, however, aggregates production is a major part of the proposal then reference should be made to Annex 1 to MPS1; • the suitability of stone extracted from a building stone quarry for use as a roofing material, stone extracted from a roofing stone quarry for use as blockstone, or where building and/or roofing stone resources are available from an aggregate quarry. In such cases the operator should be encouraged to identify and, where practicable, set aside such material until an appropriate use can be identified. If no immediate use can be identified, consideration should be given to the potential for stockpiling the material on an environmentally acceptable site, either on or in the ground, until needed; • the fact that in some circumstances it may be economic to undertake underground mining of building stone. This can reduce environmental impacts on the ground surface provided adequate precautions are taken to maintain ground stability after extraction has ceased; • the fact that it may take several years, or longer, for the stone for a specific repair project to be identified. Pre-application discussions may therefore need to be undertaken a relatively long time before any planning application is lodged; and • the fact that in some cases the viability of a small quarry as a source of building or roofing stone may depend on the sale of by-products arising from the extraction and processing of building and roofing stone.	
3.11	Each proposal needs to be considered on the basis of its specific characteristics and potential environmental and landscape impacts, and: • whether formal environmental assessment under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 ("the 1999 EIA Regs") is justified for proposals to develop and operate small stone quarries; and • where proposals to re-activate dormant quarries are submitted, MPAs/LPAs will, under the Reviews of Interim Development Order permissions and Old Mineral Permissions (under the Planning and Compensation Act 1991 and Environment Act 1995 respectively), have to consider updated operating and restoration conditions for the working of the quarries. Similarly, updated conditions for all active quarries will need to be considered as part of the periodic review process under the 1995 Act. In either of the above situations, MPAs/LPAs should ensure that any operating and restoration conditions attached to an application comply with the policy guidance in this annex and consider whether there is a need for environmental impact assessment under the 1999 EIA Regs (as amended).	
3.12	Where in-quarry stone processing sites are supplied from nearby groups of small pits, account should be taken of the fact that such sites are often worked intermittently, for small quantities of stone at any one time, when framing planning conditions or negotiating planning agreements.	
3.13	e) Efficiency of use While there are sustainability arguments for making good use of waste rock as, for example, aggregate, caution is needed that this should not substantially change the nature of the operation into an aggregates quarry…	
3.15	g) Liaison The building and roofing stone extraction and stone processing industry is encouraged to:	

	• consult with stakeholders, including MPAs, English Heritage, the local community, managers of relevant major historic buildings, architects, building surveyors and conservation officers, and conservation and amenity groups, when developing medium and longer-term supply strategies for specific stone extraction and processing plants and to assist the planning process by providing MPAs with appropriate information, (if necessary on a commercially confidential basis), on reserves of building and/or roofing stone.	
	Annex 4: On-shore oil and gas and underground storage of natural gas	
1.1	Introduction This annex sets out Government planning policy on planning control of land-based exploration, appraisal, development and extraction of oil and gas (including gas from coal) resources in England. It also refers to underground storage of natural gas.	
1.2	Where underground gas storage is proposed at sites not involved in mineral extraction, the development may well be of a general industrial character and not mineral development.	
1.3	In this annex, "oil and gas" includes any hydrocarbon, which in its natural state is not a solid, and methane or any combustible natural gas. The underground storage of hydrogen is excluded.	
1.4	The guidance deals with four methods of oil and/or gas development: (i) conventional on-shore oil and gas (COG) development – extraction of petroleum or hydrocarbon oils and gases by drilling and, if necessary, pumping from land-based sites; and gas extracted from coal in a number of other ways; (ii) coalbed methane – extraction by drilling into un-mined coal seams to release methane; (iii) capture of methane from coal mines that has accumulated in, and may be freely venting from mine voids; and (iv) underground coal gasification – drilling into and subsequent controlled underground gasification of pressurised coal seams and the recovery and use of the resulting gases. It also deals with the underground storage of natural gas.	
1.5	In addition to the need to obtain planning permission, oil and gas exploration and extraction operations, are regulated by a separate licensing system operated by the Secretary of State for Trade and Industry (SSTI), although the status of underground coal gasification under the Petroleum Act 1998 is not yet clear. Once a licence has been granted, planning permission must be obtained before the SSTI will give consent either to drill a well, or to develop an oil or gas field or a coalbed methane or coalmine methane project.	
2.1	Energy policy The Government's energy policy, stated in its White Paper Our energy future: creating a low carbon economy – Cmnd 5761, of 25 February 2003, is: • to cut carbon dioxide emissions by 60% by 2050, with real progress by 2020; • to maintain the reliability of energy supplies; • to promote competitive markets in the UK and beyond; and • to ensure that every home is adequately and affordably heated.	Reference is needed in a policy statement on oil and gas.
2.2	The Government does not propose to set targets for the share of total energy or electricity supply to be met from different fuels: it believes this is a matter for the markets, reinforced by long term policy measures. Forecasts vary but it is commonly agreed that UK conventional oil and gas production off-shore will decline significantly over coming years and that by 2020 the UK is likely to be importing around three quarters of its primary energy needs. In the short to medium-term, the aim is to: • maximise the potential of the UK's conventional oil and gas reserves in an environmentally acceptable manner; • encourage the development of clean coal technologies; and • encourage the capture of methane from coal mines where environmentally acceptable.	
2.3	The Government reviewed its progress against the above medium and long-term goals and published its results in the 2006 Command Paper The Energy Challenge (Cmnd 6887). The paper outlines a package of measures for action on both supply and demand if we are to put the UK in a position to tackle the major challenges of climate change and secure clean affordable energy supplies. The paper confirms the importance of gas supply infrastructure, such as underground storage, to maintaining the reliability of our energy supplies. This need was also set out by the SSTI in May 2006 in the statement of need for additional gas supply infrastructure.	
3.2	Ancillary policies for on-shore oil and gas development a) Conventional oil and gas development (COG) COG development broadly consists of three phases – exploration, appraisal and production. (These are described in the practice guide which accompanies Minerals Policy Statement 1). Each phase requires a separate planning permission…	
3.3	**Exploration** Exploration encompasses a range of activities, including geological mapping, geophysical (seismic) investigations, and the drilling and investigation of wells and boreholes to assess prospects in more detail.	

3.4	*Seismic investigations* Seismic investigations generally have very limited environmental effects. Vibroseis techniques are often regarded as de minimis, since the investigations are transient. Where seismic surveys constitute development within the terms of the Town and Country Planning Act 1990 ("the 1990 Act"), permitted development rights (PDRs) are available under the Town and Country Planning (General Permitted Development) Order 1995 (GPDO), subject to certain conditions…	
3.6	*Drilling* Part 22 of Schedule 2 to the GPDO gives PDRs in respect of certain exploratory operations undertaken with a view to the exploitation of a mineral, subject in certain cases to the developer giving 28 days notice to the MPA. However, development consisting of the drilling of wells for COG exploration is explicitly excluded, and an application for planning permission must be made to the MPA.	
3.10	In most cases it will be appropriate to attach conditions to planning permissions to ensure that any adverse impact of the operation on the environment and local residents is kept to a minimum. Sometimes agreement on working practices may be reached with the operator based on the conditions attached to the award of the licence, or as part of an agreement made under section 106 of the 1990 Act (as amended)…	
3.12	… Early consultation with the appropriate regional office of the Environment Agency is essential, so as to consider measures to avoid the risk of pollution to ground water and aquifers. If aquifers are to be breached it will be necessary to discuss well-casing details and the composition of drilling muds with the Agency. Off-site disposal of drilling mud and cuttings are matters to be decided as part of the appropriate IPPC permit.	
3.13	**Appraisal** Should hydrocarbons be found as a result of drilling an exploration well, it may be possible to appraise the find by longer-term testing of that well. In other cases it may be necessary to attempt to define the extent of the find by drilling further wells at other suitable sites in the area. Until the extent of a find has been delineated, it is difficult to evaluate the various options available or to assess the viability and potential environmental effects of commercial exploitation. By the time applications for appraisal wells are submitted, operators may sometimes feel sufficiently confident about the extent of the find, and the way in which they would wish to exploit it, to consider supplying information on the likely planning proposals to the MPA at that stage. This should be on the clear understanding that further appraisal might necessarily lead to changes in plans…	
3.14	**Production and Distribution** Although individual well sites can raise environmental issues, the gathering stations required for sustained production which separate, purify and treat the raw material, are likely to take up the most land. However, there is some flexibility in the siting of these facilities and it is usually possible to conceal them by careful screening, landscaping and design, and by sinking facilities, including security fencing, below the surrounding ground level…	
3.15	Pre-application discussions between the MPA and the industry on potential production proposals are essential. For the larger finds, it will be particularly important to establish how far the envisaged surface production facilities would be sufficient to handle the expected output from the find, or related finds as a whole. These considerations will also form part of the development programme, which operators are required to submit for consent to DTI under the terms of their licence. In exceptional cases, where discoveries of economic deposits extend across licence boundaries, the SSTI has powers to direct that such a find or accumulation is worked and developed as a unit.	
3.16	It will usually be necessary for a MPA to attach certain conditions to any grant of planning permission for a gathering station or an export terminal, or to seek an agreement with the operator using section 106 of the 1990 Act for matters that fall outside planning control. Policies should make clear that conditions are likely to be imposed governing, amongst other matters: • timing and method of gas flaring, (also controlled by DTI under the Energy Act 1976); • access; • the direction of vehicles leaving the site; • noise emissions; • prevention of pollution associated, for example, with possible spillages; • the means of disposal of unwanted gas; and • the method by which the end product is to be transported from the well site or gathering station.	
3.17	Operators should address all of these points in their planning applications and, where necessary and appropriate, in supporting environmental statements…	
3.18	Where pipelines are to be used for transporting extracted oil and gas it will be necessary for operators to obtain consent from the appropriate authorities (the relevant MPAs, the Environment Agency and the Health and Safety Executive) for routes, vehicle access, the location of machinery storage areas, and of pipes, pipe-laying equipment and other construction materials. In drawing up proposals, operators should avoid environmentally sensitive locations and take account of any potential impacts on nature conservation, for example the movement of animals. Proposals should also take into account the possible implications for agricultural activities, consulting where necessary with associations that represent agricultural interests.	Guidance rather than overarching policy.
3.19	For pipelines less than 10 miles in length, planning permission is required from the MPA. Longer pipelines require authorisation from the SSTI under the Pipelines Act 1962, although the usual planning and environmental considerations would be taken into account. The views of the LPAs, the Environment Agency, Natural England, the Health and Safety Executive, landowners and tenants should be sought. Also, a full environmental impact assessment statement would normally be	Guidance rather than overarching policy.

	required. On granting authorisation, the SSTI would then direct that planning permission for the pipeline shall be deemed to have been granted. In all cases, it is essential that land affected by pipeline development should be properly restored.	
3.20	b) Gas from coal seams and workings Access to coal seams is controlled by the Coal Authority. This includes drilling into seams for the purpose of methane extraction and for use of the coal in underground coal gasification.	
3.22	**Coalbed Methane (CBM)** CBM developments do not have the same discrete phases of exploration, appraisal and production as COG developments. Exploration and appraisal is a single process. The same wells that have been used for exploration/appraisal will be used, as soon as possible, for production, though there may be a necessary delay because of the need for dewatering. Policies, applications and permissions should reflect this. Nevertheless, LDDs should make it clear that planning permission for exploration and appraisal does not carry with it any presumption that long-term production from those wells, or that the development of further wells, will be permitted.	
3.23	The main environmental impacts associated with CBM development are similar to those for COG. However, particular attention should also be given to the abstraction of any groundwater and its impacts, as well as the disposal of water produced during well stimulation and production of gas. The Environment Agency must be consulted and the relevant permission(s) obtained before any disposal or abstraction takes place.	Mainly guidance.
3.24	Development of a coalbed methane production area usually involves an incremental approach where groups of new wells will be added to a "hub" of wells already in production. This allows the knowledge gained in the drilling and completion of wells to be used to the maximum effect in the drilling of adjacent wells. Therefore the design solution for the development of the field as a whole may not have been resolved, or the engineering details finalised, at the time planning permission is sought for the first hub of production wells…	
3.25	**Methane from coal mines (Coal Mine Methane (CMM) and Abandoned Mine Methane (AMM))** Methane escapes from coal seams during the working of mines and can present explosion and health hazards. Therefore working mines are ventilated, and methane is sometimes extracted and used for energy production usually for the operation of the mine itself. On abandonment or closure of the mine, if the workings do not become flooded, methane may accumulate in residual voids from which it can potentially be extracted. In some cases, methane escaping naturally from such voids may cause a danger to property or health. In such cases it is necessary to vent the gas in a controlled manner. In either circumstance, it may sometimes be economic to recover and use the gas, for example for local electricity generation. Methane is also a much more potent greenhouse gas than carbon dioxide and this is a further reason to avoid or prevent uncontrolled escapes. Capture and use for electricity generation, or conversion to carbon dioxide by simple flaring, reduces overall greenhouse gas emissions though productive energy capture, where practicable, is preferable to flaring…	
3.26	**Underground coal gasification (UCG)** UCG is the in situ conversion of coal into the combustible gases hydrogen, carbon monoxide and methane. It takes place by the interaction of the coal with oxygen and water/steam after ignition under pressure. The technique has the potential to provide a clean and convenient source of energy from coal seams where traditional mining methods are impossible or uneconomic.	
3.27	DTI has examined the opportunities for UCG and its potential contribution to the future UK energy supply. If this source of energy is to be exploited then an experimental UCG development would need to be undertaken. If any such experiment were to be proposed in England, it would be subject to all the usual planning procedures including the Secretary of State's power to call-in applications for her own determination.	
3.28	Because of the absence, so far, of any UCG development in the UK, the technique is not referred to in the Schedules to the 1999 EIA Regulations or the accompanying Circular 02/99. However, if a MPA were to receive a pre-application enquiry regarding a UCG proposal it should pay close attention to the potential environmental impacts, both above and below ground, in considering whether an environmental impact assessment is required. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.	
4.1	Underground storage of natural gas Demand for gas fluctuates on a daily and seasonal basis. Therefore storage facilities are important for balancing peaks and troughs in supply and safeguarding against disruptions to delivery of gas. This is particularly so as the UK reduces the share of its direct consumption from reserves in its territorial waters and increasingly becomes reliant on imports via pipelines or sea transport. Storage facilities must accommodate large volumes of gas safely, and be capable of being recharged or drawn upon quickly to meet demand. Properly designed large-scale underground storage is more practical and safer than surface storage. Gas can be stored in porous rock, such as depleted gas and oil reservoirs and aquifers, or in large underground cavities produced by conventional mining or by dissolution of salt.	
4.2	Proposals being made by licensed gas transporters developing storage in porous strata are considered under the Gas Act 1965, administered by DTI. Other applications may be made under Town and Country Planning Act provisions. This guidance is principally concerned with the latter, although LPAs are also consulted within the Gas Act procedures.	
4.3	In two-tier planning areas, minerals planning policies and applications are matters for the county councils as MPAs to deal with, but industrial development is the	

	responsibility of the district councils. In unitary areas and in National Parks, the single planning authority exercises both groups of tasks. Thus, minerals developments are dealt with as county matters. This has implications for planning policies and applications for gas storage.	
4.4	Where storage in aquifers or existing cavities is proposed, this is essentially industrial development and is often a district authority matter, except to the extent that use of a cavity may be an after-use of a mine. However, consideration of re-use of cavities in mineral deposits may need to draw upon specialist expertise available in county councils. In contrast, the excavation of new cavities by underground mining of rock or brine pumping or the use of partly or wholly depleted oil and gas reservoirs, not least because injected gas may be used as part of the extraction process, is likely to be mineral development and, therefore, a county council matter. Much of the infrastructure for previous on-shore oil or gas extraction could also be used or adapted for gas storage. Therefore, county and district authorities in areas that have underground gas storage potential should discuss this issue and agree coherent policies for dealing with applications. When applications are submitted, these authorities should agree which are county council matters and which are not, depending on the circumstances of the application, including all the development that is proposed. Unitary and National Park authorities should also, where appropriate, develop planning policies for dealing with applications for underground gas storage.	
4.6	MPAs should take account of matters concerning surface and underground development associated with gas storage that are material to the determination of the planning application. The techniques for exploration and evaluation of the potential for underground storage of gas, and surface development associated with underground gas storage facilities, are similar to those used for oil and gas exploitation, described earlier. Development of underground cavities by mining and brine pumping is essentially similar to other mining operations. Therefore, the same factors for determining other mining operation applications should be applied, as appropriate to applications for underground gas storage.	
4.7	General issues that should also be taken into account are: • that Government welcomes proposals to increase flexibility in the UK gas market, but is not prescriptive about how this is to be achieved. Proposals are a commercial matter for the market; • the national energy policy benefit of the proposal; • the likelihood that suitable onshore locations for gas storage will be very limited in number, due to the lack of suitable geographical features for underground gas storage, so that alternative possibilities may not be available; • the acceptability of proposals and measures to mitigate the potential environmental impacts of exploration and development of the proposed facility, in terms of both the surface and subsurface works; and • the integrity and safety of underground facilities especially in terms of maintenance of the pressure regime, the prevention of leakage of gas and the avoidance of pollution.	
4.8	It is likely that most applications for significant gas storage facilities will require environmental impact assessment. Applications and any accompanying environmental statements should include adequate information on the suitability of proposed sites for secure and safe containment of gas or the means of making them so, and the avoidance and control of pollution. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.	
4.9	Applicants should confirm with the MPA whether hazardous substances consent under the Planning (Hazardous Substances) Act 1990 is required. The Health and Safety Executive are statutory consultees in the process and would be consulted on whether there are safety grounds for refusal of applications.	

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
2	**Introduction** …Where adverse environmental effects cannot be adequately controlled or mitigated through the design of proposals or the attachment of conditions, planning permission should be refused.	Specific policy.
4	Sustainable development MPAs should incorporate the objectives of sustainable development in minerals planning. These objectives recognise the potential conflict between the exploitation of resources and environmental aims. In order to reconcile such conflicts, MPAs should aim to: • conserve minerals as far as possible, whilst ensuring an adequate supply to meet the needs of society; • ensure that the environmental impacts caused by mineral operations and the transport of minerals are kept to an acceptable minimum; • minimise production of waste and to encourage efficient use of materials, including appropriate use of high-quality materials, and recycling of waste; • encourage sensitive working, restoration and aftercare practices during minerals extraction and to conserve or enhance the overall quality of the environment once extraction has ceased; • safeguard the long-term capability of best and most versatile agricultural land, and conserve soil resources for use in a sustainable way; and • protect areas of nationally-designated landscape or archaeological value, cultural heritage or nature conservation from mineral development, other than in exceptional circumstances where it has been demonstrated that the proposed development is in the public interest.	National objectives fundamentally underpin national policies. Objectives flow through into actual policies.
5	Purpose of this guidance … In securing this aim, MPAs should liaise appropriately with Environmental Health Authorities (EHAs), relevant government agencies (i.e. the Environment Agency, English Nature, the Countryside Agency and the Health & Safety Executive), voluntary conservation and environmental groups (i.e. the Wildlife Trusts, The Royal Society for the Protection of Birds (RSPB) etc.), local communities, developers and minerals operators to secure improvements in the environmental performance of minerals extraction. Industries involving similar processes (i.e. aggregates recycling, construction and waste disposal etc.) should take into account relevant elements of this Statement in planning their own development proposals, in the expectation that they will be applied by planning authorities.	Specific policy.
11	**Planning considerations** Development documents and policies Development plan policies and proposals for minerals extraction and associated development should take into account: • the impacts of mineral working, such as visual intrusion, dewatering, water pollution, noise, dust and fine particulates, blasting and traffic; • the impacts on landscape, agricultural land, soil resources, ecology and wildlife, including severance of landscape and habitat loss, and impacts on sites of nature conservation, archaeological and cultural heritage value; • the benefits such as providing an adequate supply of minerals to the economy and hence for society (including construction materials needed for the development of national infrastructure and the creation of sustainable communities), creating job opportunities, and the scope for landscape, biodiversity and amenity improvements through mineral working and subsequent restoration; and • the methods of control through planning conditions or agreements to ensure that impacts are kept to an acceptable minimum.	
12	Policies and proposals should take into account the level of existing activity and impacts, the duration and nature of proposals for new or further working, and the extent of impacts which a particular site, locality, community, environment or wider area of mineral working can reasonably be expected to tolerate over a particular or proposed period. With respect to an individual site, the effect of all relevant impacts (i.e. of noise, dust, traffic, on landscape etc.) should be considered objectively. Impacts that are acceptable individually should not be regarded as unacceptable in combination without a proper assessment. MPAs should also have regard where relevant to cumulative impacts of simultaneous and/or successive working of a number of sites in a wider area of commercially-viable deposits. These may affect communities and localities over an extended period, depending on the nature, age and size of the site(s) (see paragraphs 24–29).	Specific policy.
13	Other development plan policies should ensure that development other than mineral extraction does not encroach on existing mineral operations, thus subjecting that development to a level of environmental impact that may be unacceptable and leading to complaints about the adequacy of planning conditions for the mineral operation concerned…	Specific policy.
14	Pre-application discussions … Before applications are submitted to an MPA for determination, developers should discuss their proposals with the relevant local authorities and any other organisations whose interests may be affected by the proposed development. They should consult the Environment Agency and/or the local authority as regulator in respect of any pollution control requirements. Issues such as noise, traffic, dust, blasting, drainage, access arrangements, working methods, pollution control, landscape, restoration, after-use and stability should be discussed with the appropriate bodies prior to making an application. Developers should consult the Environment Agency to evaluate the hydrological, chemical and ecological impact of any workings on groundwater and surface water supplies.	

15	Developers should consult other local authority departments such as EHAs on noise and dust, and Highway Authorities on traffic. Where appropriate, they should consult the Department for Environment, Food and Rural Affairs (Defra), the Countryside Agency, English Nature, English Heritage, the Forestry Commission, and other parties with a material interest, over proposals to develop land in agricultural use or forestry or land of environmental, nature conservation, historic or archaeological importance.	Specific policy.
16	In all cases, the MPA should obtain information from the operators and other interested parties about the likely environmental effects of proposals and how they are to be controlled. Operators should seek screening and scoping opinions from the MPA on the need for and content of ESs appropriate to the scale of the proposal and the sensitivity of its location.	Specific policy.
17	Consideration of applications Applications which are in accordance with the relevant development plan should be allowed unless material considerations indicate otherwise. MPAs should have regard to all material considerations including the policies outlined in PPGs and MPGs, and their successor PPSs and MPSs. Developers should consider whether the development proposed would be in accordance with the development plan and, if not, whether other material considerations might be used to justify the development proceeding nonetheless. MPAs should take into account the full range of social, community, economic and environmental issues relevant to the planning decision.	
18	When preparing the application and in proposing any necessary mitigation measures, the developer should demonstrate that any potential adverse effects have been properly and competently considered. Any adverse effects on local communities, environmental damage or loss of amenity must be kept to an acceptable minimum through the design of the proposals, including the use of planning obligation agreements where appropriate and the attachment of conditions. Where effective mitigation of unacceptable impact by those means is not possible, permission should be refused.	
20	Planning conditions MPAs should ensure planning conditions are enforceable. They must be precise, capable of being monitored (infringements must be detectable), defined sufficiently for breaches to be provable, necessary, relevant to planning and to the development, and reasonable. The two principal types are: • performance requirements; and • the use of specific ameliorative measures.	Specific policy.
21	**Performance Requirements** Effective planning requires judgements based upon local circumstances and local objectives. MPAs should set out measurable performance requirements, such as noise or vibration limits, that make clear to operators what is expected of them so they can make their own decisions on the most cost effective way of meeting those criteria, while allowing outcomes to be monitored. MPAs should not specify methods for securing compliance that could inadvertently and unreasonably prejudice the flexibility of the operator's working methods and profitability. Performance requirements should usually be designed to: • achieve a minimum environmental quality; • limit degradation of the environment; and • encourage improvement.	Specific policy.
23	**Amelioration Measures** …These should be specified as planning conditions to mitigate adverse effects where there is difficulty in defining a performance criterion which can be readily monitored and enforced.	Specific policy.
24	Proximity of minerals workings to communities MPAs should ensure that the adverse effects of mineral working on neighbouring communities are minimised…	
30	Conclusion … Meanwhile the First Secretary of State looks to all LPAs and to mineral operators to follow the policies it sets out. They should ensure that the environmental impacts of mineral workings are minimised and controlled, and foster good community relations between mineral developers and operators and those living close to mineral workings…	

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
1	**Introduction** Minerals Policy Statement 2 (MPS2) sets out the policies and considerations in relation to the environmental effects of minerals extraction that the Government expects Mineral Planning Authorities (MPAs) in England to follow when preparing development plans and in considering applications for minerals development. It supersedes Minerals Planning Guidance Note 11 (MPG11) and should also assist mineral operators and their professional advisers in drawing up proposals for new or extensions to existing planning permissions, and help local communities and voluntary bodies when considering minerals policies in development plans and individual proposals for minerals development. While Regional Planning Bodies (RPBs) and the Mayor of London will need to be aware of the issue of mitigating the environmental effects of mineral working in framing the minerals elements of Regional Spatial Strategies (RSSs) and the Greater London Strategy, the requirements of this Statement are too detailed to be reflected in RSSs.	
2	Exploitation of the UK's mineral resources contributes to the nation's prosperity and quality of life. The supply of essential materials for the construction, energy supply, manufacturing and other industries enables social and economic progress. Mineral working can be beneficial by providing employment, clearing areas of dereliction, dealing with instability and providing materials which allow redevelopment and the creation of sustainable communities and infrastructure. However, it also has impacts on the environment. Since minerals can only be worked where they are found, and as this may be in environmentally-sensitive or designated landscape areas and/or in close proximity to communities, the need to keep these impacts to an acceptable minimum in the planning and operating of extraction sites is a high priority…	
3	In this document, the term 'development plan' also refers to development documents prepared as part of local development schemes or minerals and waste development schemes under the Planning and Compulsory Purchase Act 2004.	
5	Purpose of this guidance This Statement sets out how MPAs should minimise any significant adverse environmental effects that may arise from minerals extraction by: • framing policies in development plans; • considering planning applications; and • considering reviews of planning consents under the provisions of the Environment Act 1995…	
6	Scope and structure This Minerals Policy Statement (MPS) comprises an overarching document, supported by technical annexes setting out policies and good practice on specific environmental effects. This Statement provides policy on: • the planning considerations for the formulation of development plans, and decisions on individual planning applications and formulating planning conditions; and • environmental management systems (EMSs) and community relations.	
7	Details on specific environmental effects are to be provided in Annexes to this Statement. Annexes 1 and 2 on *Dust* and *Noise* respectively, are published with this MPS. Further Annexes will be published, following consultation, as soon as practicable.	
8	**Planning considerations** Environmental Impact Assessment An Environmental Impact Assessment (EIA) should ensure that the likely significant environmental effects of a proposed development are fully understood and taken into account before development is allowed to go ahead. Under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, as amended by the Town and Country Planning (Environmental Impact Assessment) (England and Wales) (Amendment) Regulations 2000, an EIA is mandatory for new mineral extraction sites and/or extensions to or reviews of permissions for existing sites of more than 25 hectares. Below this threshold, new sites and modifications to existing sites require an EIA if, without any mitigatory measures, they would be likely to have significant environmental effects. Criteria for assessing the need for EIA in Schedule 3 of the 1999 Town and Country Planning Regulations are based on the characteristics of the development, its location and the characterisation of the potential impact. Mineral working applications and reviews of old mineral permissions in or affecting the following designations (National Parks, the Broads, Areas of Outstanding Natural Beauty, World Heritage Sites, Scheduled Monuments, Sites of Special Scientific Interest and land to which Nature Conservation Orders apply and international conservation sites (e.g. those designated under the EU Habitats Directive or the Ramsar Convention on Wetlands)) should be subject to the most rigorous examination, normally including an Environmental Statement (ES), regardless of the size of the site. Guidance is given in DETR Circular 02/99 *Environmental Impact Assessment*.	
9	An environmental assessment of an extension or a modification to an existing site should concentrate on the effects of the proposed modification, and take into account operations on the existing site affected by the modification. The assessment should consider if the modification could lead to a level of environmental impact that would be unacceptable for the site as a whole, or if the proposed extension would bring the perimeter of the site closer to existing communities (thereby changing the nature or degree of the impact on existing communities). Schedule 4 to the Regulations sets out the information that must be included in an	Guidance to overcome a particular problem rather than full policy.

	ES for mineral development which requires an EIA.	
10	Development documents and policies Policies and proposals in development plans have a key part to play in meeting the Government's objectives of ensuring that development and growth are sustainable. They should have regard to Planning Policy Statement 1 (PPS1) *Delivering Sustainable Development* (2005) and Minerals Planning Guidance Note 1 (MPG1): *General Considerations and the Development Plan System* (1996) (currently under review) which provide advice on planning policy for Local Planning Authorities (LPAs), MPAs and the minerals industry. When, as expected, MPG1 is replaced by Minerals Policy Statement 1 (MPS1), similar regard should be given to this successor document.	General guidance rather than full policy.
13	… Any consequent amendment to existing planning conditions could lead to loss of workable mineral and be subject to compensation provisions. (MPG1 refers to Mineral Consultation Areas to protect mineral reserves).	
14	Pre-application discussions Proposals for mineral extraction can give rise to considerable concern in potential host communities because of the potential environmental impact that operations can have on a locality…	
19	Planning conditions The use of appropriate planning conditions may sufficiently mitigate any environmental effects so as to enable development to proceed where it might otherwise be necessary to refuse planning permission. The sensitive use of appropriate planning conditions, which address known and anticipated problems and concerns, can provide important environmental safeguards. In turn, they can influence the action that operators might take, such as entering into planning obligations and voluntary action such as good neighbours, which may be outside the scope of planning control. MPAs and developers and their advisers should have regard to the general advice on the use of planning conditions in DOE Circular 11/95 *The Use of Conditions in Planning Permission*, the advice on planning conditions specific to mineral permissions in Minerals Planning Guidance Note 2 (MPG2): *Applications, Permissions and Conditions* (1998) and the advice on planning obligations in DETR Circular 01/97 Planning Obligations and any subsequent advice that may be issued which updates and revises these documents.	General advice and less arguably guidance.
21	**Performance requirements** Model conditions are contained in the County Planning Officers' Society's *Good Practice Guide for Mineral Planning Conditions* (1995).	
22	Monitoring is an essential feature of control over mineral extraction and advice is given in the Planning Officers' Society's *Good Practice Guide for Monitoring Minerals and Waste Management Sites* (1998). In many cases, periodic checks should be sufficient to identify undesirable trends and allow action to be taken to avoid breaching planning conditions. MPAs should also have regard to the possibility in some situations of requiring the operator to provide accessible monitoring systems, and making audited reporting by the operator (e.g. under an EMS), a condition of the permission. Where appropriate, MPAs and operators should seek to reach planning agreements with owners of sensitive properties to ensure access for monitoring purposes. Advice on EMSs and environmental audits is provided in Appendix B.	General advice – only refers to the 'possibility'.
23	**Amelioration measures** Precautionary ameliorative measures include wheel and body washing, sheeting of lorries prior to leaving a site, spraying of internal haul roads and the provision of visual barriers…	
24	Proximity of mineral workings to communities … Increased public knowledge and awareness of the environmental, economic and social effects of mineral development means that the local community can actively participate in the decision-making process. Under the Planning and Compulsory Purchase Act 2004, MPAs are required to prepare a Statement of Community Involvement, which sets out their policy on involving their community in preparing Local Development Documents and consulting them on planning applications. The principles for involving the community in planning decisions are contained in the consultation papers published in February 2004 on PPS1 entitled *Creating Sustainable Communities and Community Involvement in Planning: The Government's Objectives*.	
25	The prospect of a new mineral working can promise economic benefits or the opportunity of local redevelopment or regeneration to a community, but it can also raise fears such as damage or risks to the environment and human health. Involvement of the community and relevant stakeholders helps people understand what a mineral development will involve and how it will affect them. It enables the mineral developer and operator to identify concerns at an early stage, and to address them in planning and developing the project. Good practice on community consultation and involvement is set out in Appendix A.	
26	Residents living close to mineral workings may be exposed to a number of environmental effects. MPAs must take particular care in respect of any conditions they attach to a grant of permission for working in proximity to communities. Where they judge that mitigation measures are not sufficient to safeguard the quality of the local environment, as experienced by neighbouring communities, refusal or restriction of the proposal may be appropriate. Dialogue should take place between MPAs, EHAs, operators and other stakeholders, especially in the local community, to determine appropriate mitigating measures, where these are feasible and would, if applied, allow the development to proceed.	Note about 26, 27, 28 and 29 – if 24 is taken as the statement of policy, the rest could be arguably guidance.
27	The duration of the work can be a significant factor in determining the appropriate levels of control and mitigation. Sand and gravel workings and some opencast coal sites may be completed and restored within a few years, whereas a clay pit or a quarry producing aggregates or building stone may be operational for many years. The programme of work and/or the location of plant within the mineral working should take account of the proximity to occupied properties, as well as	

	legitimate operational considerations. A programme of work should be agreed which takes account, as far as is practicable, of the potential impacts on the local community over the expected duration of operations.	
28	In some circumstances (especially where workings will have an extended life), new or extended permissions for mineral extraction close to residential property may not provide adequate protection to nearby residents despite requirements for landscaping works such as bunds, screening and planting. In such cases, MPAs should consider the need to require adequate separation distances. MPAs should require a distance that is effective but reasonable, taking into account: • the nature of the mineral extraction activity (including its duration); • the need to avoid undue sterilisation of mineral resources, location and topography; • the characteristics of the various environmental effects likely to arise; and • the various amelioration measures that can be applied. Working in proximity to residential property may be necessary where there are clear, specific achievable objectives such as the removal of instability and preparing land for subsequent development. Such working should be for a limited and specified period, without scope for extension.	
29	Some minerals are concentrated in certain areas. For example, shallow coal deposits that can be worked by opencast extraction are found within the known coalfield areas and their locations are generally well documented. Situations may therefore arise where commercially-viable deposits will be concentrated in certain areas. There may be proposals for simultaneous operations over a relatively short period of time or phased operations at a succession of sites over a relatively longer period of time, with potential for cumulative impacts in the locality. Individual mineral workings can also generate multiple environmental impacts, such as noise and traffic, or traffic and dust, together with possible impacts on the landscape, water environment and habitats. In these circumstances, the MPA should consider both the need for long-term planning to avoid unnecessary sterilisation of resources, and how the combined impacts at individual sites and the cumulative impacts of further working of the mineral in a particular area can be reconciled with the need to protect localities and communities from unacceptable consequences of that working (e.g. by the number and timing of permissions, the phasing of workings and restoration, and the attachment of conditions to mitigate impacts).	
30	<u>Conclusion</u> This Statement and its Annexes reflect current good practice. It will be kept under review and may need updating to reflect changes in technology, environmental standards and future research… … Since this Statement aims to minimise the environmental impacts of mineral workings in accordance with generally-established principles of environmental protection that were previously contained in a range of guidance, the resource implications for local authorities should be low. As far as mineral operators are concerned, implementation of the policies in this Statement is a necessary investment to secure the environmental mitigation that will enable their development to proceed in accordance with best current practice.	
31	The Annexes to this Statement cover best current practice for the various types of environmental impacts.	
Appendix A	A1. Good community relations require commitment from all those involved. Local communities need to be given accurate information about proposals, and mineral operators and developers should try to accommodate their legitimate concerns. MPAs are also required to prepare a Statement of Community Involvement, which sets out their policy for involving their community in preparing Local Development Documents and for consulting on planning applications. A2. Operators should establish a good working relationship with the people with whom they will have to work with in the MPA, local community and, where appropriate, other relevant interest groups. MPAs can significantly assist in the integration of a minerals operation within the community e.g. by providing information on the working of the planning system as applied to mineral developments. Initial and understandable community fears about the effects on the environment can often be allayed by knowledge of what those effects will be and how the operator will handle them. Operators should aim to develop a good track record on the environment, on community consultation, and in responding to complaints. This is performance against which future project proposals can be judged. The following paragraphs provide checklists for the various parties involved. A3. Planning Authorities should: • consider the cumulative effect of previous minerals development and new proposals on the locality; • avoid inappropriate non-mineral development and encroachment on the area around permitted or planned longer-term workings and the resulting avoidable sterilisation of significant reserves; • encourage dialogue between operators and the community; • encourage the establishment of local site liaison committees and enable officers and members to participate in them; and • establish effective monitoring, i.e. for noise, dust, vibration and traffic impacts, and, where appropriate, take enforcement action. A4. Operators should be: • good neighbours by: – getting to know the neighbours, being concerned about them, understanding their problems and encouraging them to know the site personnel; – setting up regular, accessible liaison arrangements and providing information as freely as possible (e.g. holding open days); – running a tidy and efficient site;	(Main text describes it as good practice).

	– promoting local lorry routing/parking and good driver schemes; and – participating in wider community activities e.g. through visiting local schools and societies. • creating lines of communication by: – appointing a site liaison officer with a widely-publicised name and telephone number; – supporting a liaison committee where appropriate; – giving advance notice and explanation of activities that might cause complaint; – keeping systematic records of complaints and the remedial actions taken; and – following up complaints by personal visits and action. • ensuring that site and transport staff are environmentally aware and trained to cope with the issues; • not quibbling about reasonable complaints i.e. they should not rely on the letter of the law where there are obvious problems but strict culpability cannot easily be proved. Also, they should be prepared to be flexible; • offering/providing non-monetary compensatory/mitigation measures where appropriate e.g. through planning obligations or by setting more demanding targets in its environmental management system; • cooperating and avoiding being adversarial; and • offering opportunities to see how operational (planning) conditions and mitigation measures have been effective elsewhere. A5. People living in proximity to mineral sites should: • get to know the operator by: – taking advantage of any approaches about site visits, other explanations, offers to set up local liaison committees; – trying to understand the operator's activities and problems without preconceptions; – listening as well as talking; – encouraging site personnel to visit them at home to discuss particular queries or concerns; – asking for a visit to the site or a similar one; and – speaking to people who have lived in the vicinity of similar workings. • be specific when making complaints e.g. date, time, clear description; and • seek opportunities to see how operational (planning) conditions and mitigation measures have been put into practice elsewhere.	
Appendix B	A primary aim of minerals planning is the mitigation and minimisation of the inevitable physical impacts of mineral extraction and processing. The limitation and mitigation of impacts on the environment has been a major issue for mineral development and operating companies for a long time. Many companies are now directing their attention towards their own environmental performance and the potential impacts of their operations. A competently-prepared and intelligently-used environmental management system (EMS) can assist operational management to meet both current and future environmental requirements and challenges. It is a quality assurance tool which can not only be used to measure a company's operations against environmental performance indicators. In the best examples, it is also a positive aid to good operational practice. It should never become an audit-driven paper chase not related to real world impacts. B2. A well-implemented EMS should integrate environmental management into a company's daily operations, long-term planning and other quality management systems. In particular, it should: • assist a company to meet its own targets and compliance with regulatory requirements; • provide a practical tool to enhance performance at all operational sites/processes; • demonstrate trends in environmental performance over time to provide a focus on what is succeeding and where more could be achieved; • improve a company's public image and improve relations with regulatory authorities; and • allow greater control of operations and costs. B3. In 1994, the British Standards Institute issued BS7750 Specifications for Environmental Management Systems. This was one of the first internationally-recognised environmental standards. It outlined the components of an EMS (see Box B1) and detailed specific requirements for each. These principles were reflected in and superseded by the standard ISO 14001 (1996) Environmental Management Systems: Specification with Guidance for Use of the International Organisation for Standardisation (ISO). The level of complexity and documentation necessary will be related to several factors, such as the site and the resources of the organisation. For small and medium-sized enterprises (SMEs), helpful guidance on the operation of non-certified systems of environmental management is provided through the British Standards Institution's Project Acorn3 and through work funded by the Aggregates Levy Sustainability Fund on EMSs for SMEs. B4. To work effectively, the EMS must be based on and be part of a company's daily routine. The site manager should demonstrate to all employees that the EMS is a vital element of the operation and that everyone must play their part in its implementation. Environmental awareness training should be included in the EMS so that employees can appreciate the reasons for it, and how their inputs are used. Existing methods, reports and meetings should be reviewed and modified to include environmental considerations, so that new procedures are not required on top of existing ones.	(advice on EMS)

	B5. After initial implementation, the EMS will need to be evaluated and reviewed to ensure that deficiencies have been identified and corrected. Operations also change over time and the system needs to accommodate this. Periodic internal review is therefore necessary, as are arrangements for independent validation and audit. Box B1 Suggested Components of a Fully-fledged EMS for Mineral Workings An EMS for mineral working should contain the following elements: • organisational commitment; • corporate environmental policy; • environmental impact assessment (EIA); • community consultation and involvement; • objectives and targets (corporate performance indicators); • environmental management programme; • documentation and records; • operational emergency procedures; • responsibility and reporting structure; • training, awareness and competence; • regulatory and legal compliance, and environmental performance review audits; • emission and performance monitoring, and measurement. B6. Environmental audit involves a systematic evaluation of evidence (verifiable information, records or statements of fact) to determine whether or not the EMS and the environmental performance it measures, conform to planned objectives, and whether or not the system is being implemented effectively, and is suitable to meet the organisation's environmental policies and objectives. Environmental audits can help the minerals industry improve its environmental responsibilities and demonstrate this to the community. Environmental audits help in assuring the accuracy and relevance of environmental monitoring. They also measure an organisation's environmental performance and encourage continual improvement. Procedures included in an environmental audit record whether a company is meeting its environmental objectives in: • pre-audit planning; • site activities (interviews and inspections); • gathering and evaluation of audit evidence; • development of audit findings; • recommendations, documentation and reporting of the findings; and • audit follow-up (action plans, revisions etc.). B7. Environmental audits also help mineral working companies demonstrate to regulatory authorities that they are complying with legislation, regulation and conditions contained in pollution control authorisations, discharge approvals and planning permissions.	
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EC Air Quality Framework Directive (96/62/EC)
EC Groundwater Directive (80/68/EEC)
EC Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Directive 92/43/EEC) (*EU Habitat Directive*)
The Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar 2.2.1971, as amended 3.12.1982)
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MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND, ANNEX 1: DUST - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
1.1	Introduction In formulating plans for mineral extraction or related activity and appraising mitigation strategies, Mineral Planning Authorities (MPAs) should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused. The Government looks to the minerals industry to keep dust emissions at a level that reflects high environmental standards and to work for continuous improvement based on best available techniques (BAT).	Specific policy.
1.4	Purpose and scope of this annex … Planning conditions on dust should not duplicate controls placed on the developer under the relevant pollution control regime…	Specific policy.
1.5	… However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action, and MPAs should take due account of this in their decisions on individual applications. MPAs and operators should liaise with the relevant pollution control bodies (i.e. the Environment Agency and Local Authority (LA) Environmental Health Departments) in considering and making decisions on individual applications.	Specific policy.
1.6	General considerations The key planning principle is that dust emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should include appropriate proposals for the control and/or mitigation of dust emissions. Those making development proposals should carry out an appropriate dust assessment study (see Appendix 1C), and MPAs should consider the results of such a study to: • establish baseline conditions of the existing dust climate around the site of the proposed operations; • identify site activities that could lead to dust emission without mitigation; • identify site parameters which may increase potential impacts from dust; • recommend mitigation measures, including modification of site design; and • make proposals to monitor and report dust emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.	Specific policy.
1.16	Health effects … When PM_{10} impact is found to be significant in planning terms but, on balance, does not merit refusal of an application, procedures to monitor and control PM_{10} should be adopted.	Specific policy.
1.17	…Because the activities identified are common to all mineral sites, the Government considers that the research recommendations should be extended to cover all types of mineral workings. In doing so, it recognises that the research was specific to opencast coal sites, which involve significantly more earthmoving than most other mineral workings. The materials excavated also vary with the mineral being worked. In addition, certain quarry processes are controlled under Part I of the EPA 1990 (see *Secretary of State's Guidance – Quarry Processes* PG3/8/96, DOE 1996) and now, by the PPC Regulations, and it would be for the pollution control system to control dust emissions from these. These factors need to be incorporated into the assessment of potential impact from PM_{10}.	Specific policy. Should consider the use of the term 'surface' coal mining rather than 'opencast'.
1.18	The potential impacts of opencast and other mineral activities on particular sites should be highlighted at the scoping stage of a planning application (see Appendix 1C). This should identify any special requirements for the environmental impact assessment (EIA). The likely number and frequency of predicted exceedences of the AQOs, together with the proximity of operations to residential property and other sensitive uses should constitute a major part of the EIA and the weight this should be given in balancing the benefits of the site against potential impacts… … In deciding a cut-off point for individual proposals, MPAs should also consider whether the topography, the nature of the landscape, the respective location of the site and the nearest residential property or other sensitive use in relation to the prevailing wind direction and visibility may justify the distance being tailored to local circumstances, and hence whether a greater or lesser distance may be justified.	Specific policy.
1.19	If within a site the actual source of emission (e.g. the haul roads, crushers, stockpiles etc.) is within 1000m of any residential property or other sensitive use, then a further assessment should examine the likely impacts and the weight they should be given in the decision making process…	Specific policy.
1.22	Development plans MPAs should set out in their local or minerals development documents (or in their mineral plans where these are still in preparation) their policies on dust from surface mineral operations. Plans and policies should contain guidance on those considerations related to dust emissions and control that will be taken into account in assessing planning applications, whilst recognising the range of control and mitigation measures available, including those under Part I of the EPA 1990. They should outline the criteria against which they will assess the environmental acceptability of the expected dust emissions from a proposed surface mineral operation or review the conditions on existing planning permissions. Other mineral policies relevant to the general mitigation of environmental effects and good practices are also likely to be relevant to the control and mitigation of dust including those relating to separation distances, landscaping and screening.	Specific policy.

1.23	Development control When considering applications for new mineral development or reviewing conditions on existing permissions, MPAs should have regard to the environmental acceptability of the likely dust emissions, including the cumulative impact at residential properties and on other sensitive uses. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development, together with proposals for appropriate control or mitigation.	Specific policy.
1.24	Pre-application discussions The control and mitigation of dust (as with other environmental impacts) should be discussed between the mineral operator and the MPA and the LA Environmental Health Department before an application is submitted. This will ensure that all parties are fully aware of all the issues and avoid delays in processing the application…	Specific policy.
1.25	MPAs and mineral operators should ensure appropriate consultations and effective liaison with all stakeholders, including statutory consultees and the local communities potentially affected by dust emissions. In particular, they should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned, as the regulator for quarry processes under the EPA 1990.	Specific policy.
1.26	Considering applications MPAs should assess the findings from a dust assessment study carried out by the applicant (see Appendix 1C) when determining planning applications or when considering conditions to attach to planning permissions. Pre-planning discussions should have addressed the principal matters relating to the design and layout of the site and these should be reflected in the plans and details of workings…	Specific policy.
1.27	MPAs should consult the EHO for the area on the effects of dust emissions and the adequacy of proposed control and mitigation measures. Where the effects of dust emissions cannot be adequately controlled or mitigated, permission should be refused. MPAs should confirm the residential properties and other sensitive uses that might be affected and the effects of the proposals on them. MPAs should consider the need for, timing, length and frequency of temporary, dusty activities that are outside normal operations, but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.	Specific policy.
1.28	Planning conditions Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way as to minimise dust emissions at the source and thereby to control them to acceptable levels. Planning conditions should not duplicate or conflict with any requirements imposed on quarry processes under Part I of the EPA 1990. MPAs should seek to identify the most appropriate control measures to address specific potential dust problems, and attach planning conditions to consents which are precise and unambiguous. The wording of the condition should make it clear as to when and where the control, or mitigation of dust, is necessary. Conditions should be worded in such a way that contraventions are easy to identify and enforcement action can be readily undertaken if necessary...	Specific policy.
1.30	**Dust mitigation through watering** Planning conditions that seek to mitigate dust through the use of water bowsers or sprays are frequently used by LAs, especially with regard to haul roads. Wherever possible, they should be specific about where and when water bowsers or sprays should be used. The condition could also specify that a chemical dust suppressant or a wetting agent be added to improve dust control. These sorts of condition require liaison with the relevant statutory consultee, in this case the Environment Agency.	Specific policy.
1.37	Conclusion The Government looks to the minerals industries to keep dust emissions at a level that reflects the highest environmental standards, to work for continuous improvement based on Best Available Techniques (BAT) and to reflect the principles set out in this Annex in framing proposals for new development and in reviews of conditions. It expects MPAs to have regard to the principles of this Annex in considering the impacts of dust on the environment and the local community in the Minerals Local Plan (and in future local and minerals development frameworks), and in determining applications and reviewing conditions on existing permissions.	Specific policy.

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND, ANNEX 1: DUST - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
1.1	Introduction If not managed or controlled, dust from surface mineral operations can have a noticeable environmental impact and affect the quality of life of local communities. It is a material planning consideration. Residents can potentially be affected by dust up to 1km from the source, although concerns about dust are most likely to be experienced near to dust sources, generally within 100 m, depending on site characteristics and in the absence of appropriate mitigation…	
1.2	Annex 1 is mainly based on research undertaken for the Office of the Deputy Prime Minister (ODPM) by Arup Environmental/Ove Arup and Partners on *The Environmental Effects of Dust from Surface Mineral Workings* (HMSO, 1995). This research considered the complaints records (and perception) of site operations and then considered how advice could best be provided to all parties to improve the situation. The historical concerns referred to in the research document have generally been addressed by modern, well designed schemes. The research reviewed 13 mineral working sites and its advice in respect of operational matters remains valid. The recommendation to adopt best practice is of continuing relevance to the minerals industry and MPAs in formulating plans for mineral extraction or related activity and designing mitigation strategies.	
1.3	The 1995 research specifically excluded any health effects of dust generated by surface mineral operations. This Annex refers to recent Government air quality advice and guidance, and as far as possible examines evidence with respect to surface mineral operations. The results of research published in 1999 into the impact of particulate matter from opencast coal sites on public health sponsored jointly by this Department and the Department of Health, are reported at paragraphs 1.9–1.19.	
1.4	Purpose and scope of this annex This Annex supplements the general policies in Minerals Policy Statement 2 (MPS2) in stating the planning considerations that the Government expects to be applied by MPAs to dust emissions from surface mineral operations. It covers surface mineral extraction, including waste disposal and recycling operations that form an integral part of a mineral working operation. It does not cover other waste disposal, recycling operations or demolition and building operations. However, since these share many operational features with surface mineral operations, operators and waste planning authorities should take account of this Annex, where it is relevant, alongside Planning Policy Guidance Note 10 (PPG10) *Planning and Waste Management* (1999) … …This Annex complements, for mineral workings, the general guidance in Planning Policy Statement 23 (PPS23) *Planning and Pollution Control* (2004) and its Annex 1 *Pollution Control, Air and Water Quality*. It covers applications for new operations and extensions to existing sites as well as the review and modernisation of conditions on older permitted operations. This Annex replaces paragraphs C20–C24 in Annex C of Mineral Planning Guidance Note 3 (MPG3) *Coal Mining and Colliery Spoil Disposal* (1999) and paragraphs C19–C20 in Annex C of Mineral Planning Guidance Note 2 (MPG2) *Applications, Permissions and Conditions* (1998), all of which are hereby cancelled.	
1.5	For certain quarry processes, dust emissions are controlled under Part I of the Environmental Protection Act (EPA) 1990 and its successor, the Pollution Prevention and Control Act 1999 and the Pollution Prevention and Control (England and Wales) Regulations 2000 (the PPC Regulations). Enforcement action to control dust when it amounts to a nuisance can be taken under Part III of the EPA 1990… … This Annex complements controls under environmental legislation by: • providing information for the consideration of dust from surface mineral workings (see Appendix 1A); • outlining the considerations that should be taken into account; • identifying examples of good practice in the control and mitigation of dust emissions (see Appendix 1B); • outlining the requirements and scope of a dust assessment study (see Appendix 1C); and • stating how the planning system can keep dust emissions within environmentally acceptable limits without imposing unreasonable burdens on mineral operators.	
1.6	General considerations A definition of dust based on particle size is provided in Appendix 1A. Paragraphs 1.10–1.11 on public perception relate mainly to particles greater than 10 μm in size. Paragraphs 1.8–1.9 on air quality and 1.12–1.19 on health effects relate to particles less than 10 μm in size (i.e. PM_{10}).	
1.8	Air quality The Air Quality Strategy for England, Scotland, Wales and Northern Ireland published in January 2000 and the Addendum of February 2003 represent a comprehensive approach to maintaining and improving the quality of ambient air in the UK. These set health-based standards and objectives for the nine air pollutants of most concern, with dates for achievement. The Strategy recognises that there are national, regional and local dimensions to air quality. In some locations, air quality problems may occur because of local factors such as the density of traffic, geography, topography etc. Details of the objectives for PM_{10} particles in the Strategy and the Addendum are set out in Table 1.1. The Government and the Welsh Assembly Government have decided that, for the time being, the tighter objectives for particles in the Addendum should be considered provisional and not be placed in Regulations for the purposes of local air quality management (LAQM) (see paragraph 1.9). The Addendum's annual mean objective for PM_{10}reflects a European Directive indicative limit value, which is due to be reviewed by the European Commission by 2005. For the meantime, LAs should use the objective to assist in their longer-term planning.	

<table>
<tr>
<td>1.9</td>
<td>LAs have a duty under Part IV of the Environment Act 1995 to review and assess air quality in their areas against the Air Quality Strategy's Objectives (AQOs), which have been prescribed in the Air Quality Regulations for both England and Wales. Where it is found these are unlikely to be met by the prescribed achievement date, the LA is required to designate Air Quality Management Areas (AQMAs) and draw up Air Quality Action Plans setting out proposals to address the problem. If particulate matter from a minerals extraction process is resulting in levels of PM_{10} being higher in sensitive locations than the prescribed objectives, the LA is required to set out in its Action Plan what steps it intends to take in pursuit of the achievement of the objectives. Guidance on the LAs' LAQM duties and responsibilities is set out in documents covering Policy (LAQM.PG(03)) and Technical Guidance on the Review and Assessment (LAQM.TG(03)) published in February 2003. (Chapter 7 of the Policy Guidance provides specific guidance on the links between air quality and the planning process. Chapter 8 of the Technical Guidance provides specific guidance on the review and assessment of PM_{10}, and Annex 1 to the Technical Guidance provides information on monitoring of the pollutants).

Table 1.1 Air Quality Strategy Objectives for Particles (PM_{10})

<table>
<tr><td>Air Quality Objective for particles (PM10) included in the England and Wales Air Quality Regulations for the purpose of LAQM</td><td>Provisional Objective for particles (PM10), to be considered for inclusion in Regulations for the purpose of LAQM following the review of the EU First Air Quality Daughter Directive (due for completion during 2005)</td></tr>
<tr><td>24-hour mean of 50 µg/m3 not to be exceeded more than 35 times a year and an annual mean of 40 µg/m3, oth to be met by 31 December 2004.</td><td>England and Wales (apart from London) 24-hour mean of 50 µg/m3 not to be exceeded more than 7 times a year and an annual mean of 20 µg/m3, both to be met by 31 December 2010. London 24-hour mean of 50 µg/m3 not to be exceeded more than 10 times a year and an annual mean of 23 µg/m3, both to be met by 31 December 2010. It is proposed that London should work towards a 20 µg/m3 annual mean aspirational objective after 2010, with the aim of achieving it by 2015, where cost effective and proportionate local action can be identified.</td></tr>
</table>
</td>
<td>Just recites legislation.</td>
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<tr>
<td>1.10</td>
<td><u>Public perception</u>
Dust effects on people have been identified as arising from increases in airborne dust concentrations, and deposition levels. Dust deposition on windows, the outside of houses and cars are the most frequently mentioned reasons for concern. The perception of dust from surface soiling is determined by a number of factors:
• deposition on a surface which is usually expected to remain free from dust;
• the colour contrast between the deposited dust and the surface upon which it settles;
• the nature of the illumination of the surface – 'dinginess';
• the presence of a nearby clean 'reference' surface against which comparisons may be made;
• the identity of the area and the composition of the local community;
• social factors, such as lifestyle and patterns of working;
• the personal experiences and expectations of the observer; and
• adverse publicity influencing the expectations of the observer.</td>
<td></td>
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<tr>
<td>1.11</td>
<td>The rate of deposition and therefore the time taken for dust deposition to become visible also influences the perception of dust. Rates of deposition vary widely with emissions, variations in wind speed and direction, and also variations in the background dust concentration. These background levels will determine the reaction of local people to any additional dust from specific mineral sources, together with the following two factors:
• the frequency of dust deposition incidents – a community may be prepared to tolerate an incident once a month, but not repeated incidents at frequencies of one or twice a week, and;
• the area affected by deposition – the larger the emissions, the larger the area affected and thus the greater the probability of activating a complaint.
Although various guidelines and/or standards are mentioned in the Arup report (see paragraph 1.2) for measuring the impacts of deposited dust, none is sufficiently well established to be recommended for adoption.</td>
<td></td>
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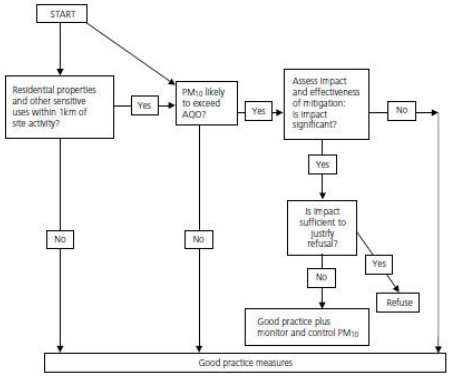
</table>

1.12	Health effects Particulate (PM_{10}) air pollution is associated with a range of effects on health including effects on the respiratory and cardiovascular systems, asthma and mortality. These effects are explored in detail in reports from the Department of Health's independent expert Committee on the Medical Effects of Air Pollutants (COMEAP), and the Expert Panel on Air Quality Standards (EPAQS). A full listing of these reports is provided in the Bibliography to this Annex.	
1.13	In the University of Newcastle-upon-Tyne's report into the impact of particulate matter from opencast coal sites on public health, ten sites in northern England were selected for the study, five communities near opencast coal sites being socio-economically matched with five similar communities where there was no opencast activity. At each site, the researchers measured PM_{10}. Four of the five community pairs were monitored for six weeks each, with the remaining pair monitored for 24 weeks to obtain a longer-term view.	
1.14	The main findings of the research were: • opencast coal mining was associated with a small increase in the mean concentration of airborne particles measured as PM_{10} in areas close to opencast sites. This was due to an increased concentration of shale rather than soot; and • the respiratory health of children living in communities close to opencast sites was very similar to that of children living in communities distant from such sites. The research showed that opencast activity had some effect on particulate levels in communities near opencast sites compared to control communities, but the levels of asthma, wheeze and bronchitis in children were broadly similar. In four out of five community pairs, there were increased GP consultation rates for respiratory, skin and eye complaints, but the average difference in number of consultations between the opencast and control sites was small.	
1.15	COMEAP endorsed the main findings of the research as above. They confirmed that: *"Overall, the number of consultations made to general practitioners was similar for children who lived close to opencast sites compared to those who did not. However, there was a small increase in consultations for respiratory, skin and eye conditions in those living close to open cast sites in four of the five pairs of communities studied. Though the increase was statistically significant, the average difference in the number of consultations between the communities close to and distant from open cast sites was small. In the absence of other evidence of effects it is not possible to be certain that these differences were due to opencast operations"*. COMEAP recommended that, as a precautionary measure, the modifications to the planning process suggested by the authors should be considered by the relevant planning authorities and incorporated in minerals planning guidance.	
1.16	Where dust is demonstrated to have the potential to affect land use, it is capable of being a material planning consideration. The Newcastle research concludes that it is relevant: • to consider the contribution of opencast coal sites to PM_{10} levels in communities up to 1000m from a site; and • to assess whether: – this is likely to lead to breaches of the AQOs (see paragraph 1.8 and Table 1.1); – the impact is significant; and – it merits refusal… … The Newcastle research recommends an assessment framework for the consideration of impacts from a proposed site. Figure 1.1 shows an amended version of the assessment framework. **Figure 1.1 Site Assessment Flow Chart**  	
1.17	COMEAP noted that the increase in particle concentrations close to opencast sites was more likely due to earthmoving and excavation than to the release of coal	

	particles…	
1.18	…The Arup research (see paragraph 1.2) defined 'remote' as more than 1000m from any residential property or sensitive use (see Table 1A2 in Appendix 1A). The Newcastle research also identifies 1000m as an adequate cut-off point for considering whether additional measures to control PM_{10} should apply…	
1.19	… The research suggests that this can be assessed against two potential sources of information: • site/community-monitored PM_{10} data; and • any available air quality-monitoring network data.	
1.20	For most areas of the UK, monitoring data will be available from the Automatic Urban and Rural Network (AURN) data, which can be accessed via the Defra air quality website. Data from appropriate AURN sites may be used to estimate annual average background levels of PM_{10} in the area of a proposed site. AURN sites, however, are widely spaced across the country and data may not be representative of the immediate area of the development site in question. However, estimated background concentrations for 2001 are available on the LAQM website. The assessment should take into account any other dust sources likely to influence the existing level of PM_{10} in the area of the site. Appendix 1C gives further advice on dust assessment. Data may also be available from the relevant local authority – many authorities hold detailed information about air quality, collected during their review and assessment of local air quality as part of their responsibilities under LAQM (see paragraph 1.9).	
1.21	Previously-measured data should be used in the first instance. Where relevant data is not available, site-related monitoring may occasionally need to be undertaken. The length of monitoring period, the methodology, the number of observations and different weather conditions should be carefully considered (see paragraph 1.9: detailed guidance on monitoring is provided in the LA's Technical Guidance on Review and Assessment (LAQM.TG(03)).	Advice more than policy.
1.24	Development control Pre-application discussions … Matters that may need to be explored include: • the existing dust climate at the locality; • the need for and scope of a dust assessment study to be conducted by the operator prior to detailed design (see Appendix 1C). Such a study could be part of a formal EIA if considered to be appropriate (see paragraphs 8 and 9 of MPS2 *Controlling and Mitigating the Environmental Effects of Mineral Extraction in England*); • the potential for different site activities to emit dust and their relationship to residential properties and other sensitive uses, and the applicability of buffer zones; and • how the layout of the site could minimise impacts, and the proposed methods of mitigation and control of dust-generating activities.	
1.26	Considering applications … In most circumstances, the principal dust concerns can be addressed through: • appropriate design and layout of the site; • the management of the site; • use of appropriate equipment; and • the adoption of appropriate control and mitigation measures.	
1.28	Planning conditions … Guidance on methods to reduce and control dust is given in Appendix 1B.	
1.29	**Dust action plans** A Dust Action Plan (DAP) can set trigger levels that relate to wind speed, wind direction and proximity to residential properties and other sensitive uses. When those trigger conditions are reached, the DAP can provide for additional dust suppression measures to be implemented as appropriate. If these are not effective, site operations should either be modified or temporarily suspended to prevent the possibility of dust nuisance in accordance with provisions in the DAP. A planning condition requiring the preparation and implementation of a DAP can be a positive approach to controlling dust to acceptable levels.	
1.31	**Dust mitigation through watering** For sites where major dust sources are close to residential properties and other sensitive uses, it may be advisable for the LA to specify that the source is kept damp constantly, or during working hours (taking account of safety on slopes). This can be related to adverse weather conditions, if these can be clearly defined. If a MPA needs to be assured that dampening measures will deal effectively with a range of dust sources that may be present during different stages of the life of a site, it could request that a scheme for the installation and operation of water sprays and bowsers is submitted for approval. In this case, adherence to the scheme should be made a condition of the planning permission.	
1.32	**Other conditions relating to haul roads and traffic** Where they judge it necessary, MPAs could require some haul roads (semi-permanent sections that are frequently trafficked by lorries), particularly those outside the working void or those that are frequently used (or near to sensitive areas), are hard-surfaced. Sheeting of lorries, and wheel- and vehicle-washing can assist in the control of dust from site traffic leaving the site and are widely used to prevent environmental nuisance on local roads.	

1.33	**Soil stripping and overburden handling** If advance warning of soil stripping is required, MPAs have the opportunity to stop operations if adverse weather is forecast. In such cases, the onus should be on the operator to provide information on forecast weather conditions. Planning conditions need to be carefully worded and take account of time delays. Other conditions can relate to the seeding of soil or overburden mounds, the specification of the shape and height of mounds and the compaction and binding of their surfaces. It is important that conditions are specific as to the type of mounds, for example topsoil and subsoil mounds. They should also specify the period of time that the mound should remain undisturbed, consistent with the operator's overall programme of works for the site, and restoration provisions. Such conditions are usually linked to proposals for site restoration and aftercare. Care is needed to ensure that potential conflicts with other interests, such as protecting soil quality, are avoided.	
1.34	**Cessation of activities** Planning conditions can require certain types of dust-emitting activities to cease during 'adverse weather conditions'. These could be useful where it is recognised that residential properties and other sensitive uses are downwind from a particular dust source or the effects are prolonged or repeat themselves. In accordance with a DAP (see paragraph 1.29), two-stage conditions could require specific mitigation followed by suspension of the relevant activity if necessary.	
1.35	**Monitoring of dust** Where dust-generating site activities are close to residential properties and other sensitive uses, dust monitoring may be appropriate. The onus for carrying out monitoring should normally fall on the operator. The results of monitoring will need to be examined with respect to local background levels, the influence of other sources of dust, their relationship to complaints about dust and the potential dust sources within the site. This will allow the operator and the MPA to review the effectiveness of control mechanisms and allow necessary action to be taken if the dust mitigation practices need to be modified. A condition should usually specify that a scheme of monitoring be submitted for approval by the MPA (this will usually be developed as part of a dust assessment (see Appendix 1C)). The MPA will need to consult the EHO for the area on the appropriateness of the monitoring scheme.	
1.36	**Stand-off distances** It is preferable that dust-generating activities are separated by a stand-off distance from residential properties and other sensitive uses. The minimum extent of this stand-off distance should be estimated through the use of a dust assessment study (possibly including dust monitoring). Stand-off distances ensure that the more severe dust impacts are not experienced around a site. Where this approach is needed, the MPA should seek to incorporate a stand-off distance into the site layout as an element in the application. However, since the site layout will change as work progresses, a stand-off distance from specified dust-generating activities can also be specified as a condition	
Appendix 1A Information on the Nature of Dust	1A.1 Dust is normally present in the atmosphere, at varying levels of concentration. Because they have a wide variety of man-made and natural origins, it is often difficult to characterise the source of individual dust particles. Sources can include: • products of combustion from e.g. fires, power stations and motor vehicles; • mechanical handling of minerals and allied materials; • movement of earth such as in farming and civil engineering; • industrial activities; • vehicle and road wear from traffic; • long distance, atmospheric movement of dust such as Saharan sand; • matter resulting from volcanic action or other geothermal activities (not a major source in the UK); and • sea salt from oceanic weathering. DEFINITION 1A.2 Dust is the generic term which BS6069 (Part 2) uses to describe particulate matter in the size range 1–75 μm (micrometres) in diameter and is produced at mineral extraction sites mainly through the crushing and abrasion of materials during the handling and movement of product minerals, overburden and wastes. Particles that are less than or equal to (≤) 10 μm in diameter are commonly referred as PM_{10}. GENERATION, EMISSION AND DISPERSAL 1A.3 Dust may be generated at mineral sites during a range of site preparation, excavation, stockpiling, loading, transportation and minerals-processing operations. Depending upon their chemical composition, the particles can be active (e.g. limestone) or inert (e.g. sand). The colour varies from black (e.g. coal) through brown to white (e.g. cement or sand). The potential for the generation of dust at mineral sites is largely related to the hardness of the minerals being handled, the extent and degree of handling and processing necessary, and the size of the mineral products being produced. Soft friable materials (such as chalk) break easily producing a greater number of dust particles for a given degree of handling. In contrast, hard minerals, such as granite, require more energy to break into smaller pieces and produce dust. However, intensive processing of hard minerals has the potential to produce significant quantities of dust. Weather conditions, including wind, precipitation and temperature, will also influence dust generation and movement. 1A.4 The process by which dust becomes airborne is referred to as dust emission. For this to happen, energy is required to overcome the gravitational and cohesive forces binding dust particles to the surface. Potential dust emissions that may be associated with mineral workings can be caused by: • surface stripping and the handling and storage of overburden;	

- mechanical-handling operations, including crushing and grading processes where in general, the more powerful the machinery and the greater the volumes of material handled, the greater the potential for dust emission;
- haulage, where the weight of vehicles, their speed of passage and the number of wheels in contact with the ground, and the nature/condition of surfaces or haul routes all affect the amount of dust emitted;
- blasting;
- ancillary 'manufacturing' operations within quarries (e.g. batching plants, concrete plants, asphalt plants etc.); and
- wind blow from paved areas, stockpiles etc.

1A.5 Dust particles are dispersed by their suspension and entrainment in an airflow. Dispersal is affected by the size of the particles emitted, and wind speed as well as their shape and density. Smaller dust particles remain airborne for longer, dispersing widely and depositing more slowly over a wider area. Large dust particles (greater than 30 μm), which make up the greatest proportion of dust emitted from mineral workings, will largely deposit within 100m of sources. Intermediate-sized particles (10–30 μm) are likely to travel up to 200–500m. Smaller particles (less than 10 μm) which make up a small proportion of the dust emitted from most mineral workings, are only deposited slowly but may travel 1000m or more. Concentrations decrease rapidly on moving away from the source, due to dispersion and dilution. Large- and intermediate-sized particles are often referred to as nuisance dust, while small particles (PM_{10}) are associated with effects on human health.

CONSIDERATIONS

1A.6 Dust emission, dispersion patterns and impacts are difficult to predict due to the wide range of activities on site that may give rise to dust, and the lack of reliable knowledge of the dust-generation capacities for these activities, together with the influence of local meteorology and topography. Computer modelling can provide crude predictions of likely dispersion patterns, and various monitoring techniques can provide an understanding of the possible levels of dust that may be deposited in and around a site.

1A.7 The amount of dust generated and emitted from a mineral working and the impact on the surrounding area varies depends on the following factors:

- the types and quantity of mineral, and the method of working;
- the types of processing activities undertaken on a site;
- the character and land use of the area surrounding the site;
- the hydrogeology of the site and the vegetation cover; and
- climate/local meteorology and topography.

Mineral Types and Processes

1A.8 The variation in potential dust impacts between different minerals depends on:

- the scale of operations: generally, the more extensive the scale of operations, the more likely that dust will be a concern;
- the nature of the mineral: softer minerals crumble more easily during handling thereby producing a greater number of dust particles;
- the colour and opacity of the mineral: high contrast dust from minerals such as coal or limestone, are generally more likely to be noticed on deposition;
- the length of operation: a potential dust problem may be more tolerable if it is known that operations will soon cease or move to another part of the site;
- the activities undertaken within a site, and their location and duration; and
- the chemical nature of the dust, which will affect the severity of the impacts upon soils and vegetation.

Table 1A1 (see page 30) summarises the dust potential of different activities within sites. Public perception and health effects are dealt with in paragraphs 1.10–1.19.

Site Location

1A.9 The geology of England determines the location of mineral sites. In areas where mineral workings are close to residential properties or other sensitive uses, their environmental performance must make them acceptable neighbours for the period of the operation. The relationship of the activities within mineral workings to surrounding land uses will vary from site to site. Since the nature of those land uses vary, so will their sensitivity to dust. Perceptions of the acceptability of the effects of dust will also differ. Table 1A2 gives broad categories of uses in terms of their sensitivity to nuisance dust.

Table 1A2 Examples of Dust-sensitive Facilities (after *Ireland M, 1992*)

High Sensitivity	Medium Sensitivity	Low Sensitivity
Hospitals and clinics	Schools	Farms
Retirement homes	Residential areas	Light and heavy industry
Hi-tech industries	Food retailers	Outdoor storage
Painting and furnishing	Glasshouses and nurseries	
Food processing	Horticultural land	
	Offices	

Table 1A1 Summary of the Potential for Dust Emission from Typical Activities Within Mineral Workings (after *Arup Environmental 1995*)

Activity	Relevance for Mineral Types	Duration of Activity	Potential for Dust Emission
Soil handling	Most minerals	Relatively short	Significant potential, but depends on dryness and silt or clay content of the material and transportation to mounds on the edge of site.
Overburden handling	Most minerals, but quantities vary considerably	Varies. Can be intermittent over life of site	Significant potential (depending on nature of overburden), particularly during unloading and haulage.
Drilling and blasting	Usually for hard rocks	Short, but can take place frequently	Without mitigation, drill rigs have significant potential (most drill rigs now use shrouds and any dust generation is very localised). Properly designed and controlled blasts have limited potential.
Other extraction and handling activities	Most minerals	Varies considerably but usually relatively long	Varies considerably depending on the equipment used.
Initial loading activities	All mineral types	Ongoing during extraction	Can be significant but varies depending on nature of material, whether wet or dry, volumes handled and equipment used.
Crushing and grading	Most minerals, but not always at the place of extraction	Varies, generally ongoing	Varies depending on type of equipment and exposure to wind. Largely controlled through the EPA 1990.
Storage of minerals within site	Most mineral types	Usually ongoing during extraction	Varies depending on the volume of stored material, whether it is wet or dry, and exposure to wind.
Transport and load-out within site	All mineral types	Usually ongoing	Can be significant but varies depending on type of transport. If road transported then the size of vehicle and nature of roads (surfaced or unmade) are important factors.
Transport offsite	All mineral types	Usually ongoing	Mainly by road but varies. Not generally significant (except near site exits).
Soil/overburden reinstatement/ restoration works	Most minerals	Can be relatively short – but may proceed intermittently in phases	Significant potential but depends on the state of the material and transportation from edges of the site.

Climate and Topography

1A.10 The potential for any site to emit dust is greatly influenced by weather. Rainfall decreases dust emissions, due to both surface wetting and increasing the rate at which airborne dust is removed from air. In contrast, strong drying winds increase the rate at which dust is lifted from an untreated surface, emitted into the air and dispersed. The following meteorological phenomena are therefore important in considering the likely behaviour of dust at mineral sites:

- the pattern of rainfall. Usually expressed in terms of number of days experiencing greater than 0.2 mm of rainfall (considered sufficient to effectively suppress wind-blown dust emissions); and

	• the frequency of wind speeds and direction. 1A.11 The topography of a site and surrounding areas can have strong effects on localised wind patterns. The effect is most pronounced in or near to valleys or hills which can channel and direct winds. In addition, the presence of surface features, such as woodland, buildings or structures can influence dust-deposition patterns. Open, exposed sites lacking shelter and surface features are likely to be more susceptible to dust blow. Wind speeds increase with height, and large mounds which project well above ground level can thus be the subject of significant wind erosion. In contrast, activities within a quarry or void will be sheltered to some extent from external winds, restricting the potential for dust to disperse beyond the site. The placing of dust-generating activities within sheltered worked-out areas of the site can therefore significantly reduce potential dust impacts offsite. Context of Particulate Matter from Mineral Workings in Relation to Matter from Other Sources 1A.12 Particulate matter in the atmosphere is composed of a wide range of materials arising from a variety of sources. Sources of airborne particulate concentrations in the UK, and their contribution to the current and future particle pollution climate have been assessed in detail by the Airborne Particles Expert Group, APEG (1999) Source Apportionment of Airborne Particulate Matter in the United Kingdom. They concluded that PM_{10} may be regarded as having three predominant source types: • *Primary particle* emissions are derived directly from combustion sources, including road traffic, power generation, industrial processes etc.; • *Secondary particles* are formed by chemical reactions in the atmosphere, and comprise principally of sulphates and nitrates; and • *Coarse particles* comprise emissions from a wide range of sources, including re-suspended dusts from road traffic, construction works, mineral extraction processes, wind-blown dusts and soils, sea salt and biological particles. In general terms, the three source types each make up roughly one third of the total long term average PM_{10} concentrations at urban background locations. The fine particle fraction (PM2.5) is composed predominantly of primary and secondary particles. Particles in the range from PM2.5 – PM_{10} generally consist of coarse particles. The vast bulk (about 80%) of the primary fraction of annual mean PM_{10} arises from emissions in the UK. APEG reported, however, that emissions in mainland Europe contribute a small amount (up to about 20%) to primary particle annual mean levels in the UK. This may be much larger during short-term peak episodes. 1A. 14 However, while these general considerations can point the way towards possible approaches to dust minimisation and containment at mineral sites, they are not a substitute for a site specific dust assessment which takes account of the proposals for extraction, handling and processing at that location.	
Appendix 1B Methods for reducing and controlling dust (identified in main doc as good practice)	1B.1 This Appendix outlines issues for consideration when designing mineral operations in relation to reducing and controlling dust emissions. SITE LAYOUT 1B.2 Sufficient time and thought needs to be devoted to site design, including the phasing of operations to allow careful consideration of the relationship of activities within the site to sensitive areas outside it. As far as possible, dust-generating activities should be located away from residential properties/sensitive premises/users (summarised in Table 1A2), and dust management issues reflected within the site design. Where appropriate, the distance between sensitive uses and dust-generating activities should be maximised. Ideally, the results of a dust assessment study (see Appendix 1C) should be used to inform site design. 1B.3 Other factors that should be taken into account in the layout of a site to reduce dust impacts are: • placing dust-generating activities where maximum protection can be obtained from topography, woodland or other features; • locating dust-generating activities where prevailing winds will blow dust away from residential properties/sensitive premises/users; and • minimising the need to transport and handle materials by placing adequate storage facilities close to processing areas. METHOD OF WORKING 1B.4 The location of dust-generating activities can move around a site during different phases of working, and therefore their relationship with dust-sensitive land uses around the site will change. It is important that the minimisation of dust through site design is addressed at each phase of the operation. 1B.5 Some activities should ideally be undertaken only during favourable weather conditions. Where possible, extended periods of dry and windy conditions should be avoided. This should be taken into account in framing conditions specified for activities such as: • soil stripping and reinstatement operations (although, as explained below, it can be important for other reasons for these to be undertaken during dry conditions); and • overburden handling near to dust-sensitive land uses. Such specifications should also take account of other factors, such as the need to avoid moving top and subsoils during wet weather to protect soil structure. The potential for different activities to generate dust during the life of a mineral working needs to be carefully considered. There may be circumstances when it would be preferable to allow higher limits during a shorter period than to maintain lower limits over a longer period. Table 1B1 summarises site operations which can emit dust and possible methods of control.	

Table 1B1 Summary of Site Operations and Possible Methods of Controlling Dust (after *Arup Environmental 1995*)

Activity	Possible Dust Control Methods
Soil handling and storage	• Restrict the duration of the activity. Seal and seed storage storage mound surfaces as soon as is practicable. • Protect surfaces from winds until disturbed areas are sealed and stable.
Overburden handling	• Protect exposed material from wind (by keeping material within voids or protecting them by topographical features). • Spray exposed surfaces of mounds regularly to maintain surface moisture unless mound surface has formed a crust after rainfall or is grassed. • Minimise handling.
Drilling and blasting	• Use dust-extraction equipment such as filters, on exhaust air emissions from drill rigs. • Remove the dusty material collected from the area of blast prior to detonation.
Loading/unloading activities	• Reduce drop heights wherever practicable. • Protect activities from wind.
Minerals processing	• Varies depending on types of equipment used but generally complete enclosure is best with use of air extraction and filter equipment as appropriate. • Use water sprays.
Material storage	• Dampen material. • Protect from wind and store under cover. • Screen material to remove dusty fractions prior to external storage.
Transport by conveyor within site	• Protect by use of wind and roof boards. • Shelter transfer points from wind. • Use scrapers to clean belts, with collection of scrapings for disposal. • Minimise drop heights and protect from wind. • Use water sprays.
Transport by vehicle within and offsite	• Restrict vehicle speed. • Water unsurfaced roads and paved roads. • Wheel or body wash at an appropriate distance from site entrance. This should always be within the site and the roadway from the washing facility to the highway should be hard-surfaced. • Load and unload in areas protected from wind. • Minimise drop heights. • Sheet or cover loaded vehicles. • Use water sprays/spray curtains to moisten material. • Sweep/wash paved roads. • Use paved roads where practicable.

1B.6 Minerals site working requires the operation of a wide range of machinery, including powerful, earth-moving equipment and rock-crushing plant. The potential for emission of dust from some of this equipment is high, although in many cases mitigation techniques can substantially reduce this potential.

	Table 1B2 Summary of Possible Measures for Reducing and Controlling Dust **Mineral Planning Authorities should:** • liaise with the pollution control authority under the EPA 1990; • consider objectives for PM_{10} under the Air Quality Regulations 2000; • consider the need to agree or specify where appropriate planning conditions relating to the: – layout of the site, design of stockpiles; – containment of conveyors and processing plant, and dust-collection equipment; – use of bowsers, sprays, vapour masts and sweepers on haul roads, stockpiles; – design of handling systems, drop heights, windguards, loading points; – use of chemical binders on haul roads and stockpiles (consult the Environment Agency); – the provision of monitoring facilities. **Operators should:** • minimise the creation of dust by planning and design where appropriate e.g. by: – the use of conveyors rather than haul roads; – locating haul roads, tips and stockpiles away and downwind from neighbours; – creating 'sensitive zones' within which dust-generating activities are limited; – planning layout and constructing stockpiles, tips and mounds to minimise dust creation; – the use of a crushing and screening plant within its design capacity; – minimising the height of fall material and the use of appropriate chippings for stemming. • control the escape of dust and remove dust where appropriate e.g. by: – enclosing conveyors, chutes, process plant, stockpiles; – providing dust-removal processing for plant and loading areas; – using sprays, mists, microfoam or foam; – fitting outlets with cyclones, wet scrubbers or filters; – insisting on good maintenance of all plant and equipment; – ensuring compact, grade, surface and maintenance of haul roads; – fitting dust extractors, filters and collectors on drilling rigs; – restricting dust-generating activities to sheltered areas; – using windbreaks/netting screens/semi-permeable fences, tress and shrubs; – limiting drop heights in stockpiling, processing and loading operations; – fitting windboards/hoods to conveyors/transfer points; reducing speeds and limit movement of vehicles, and/or using upswept exhausts (check implications for noise); – using water bowsers, road sweepers, sprays and vapour masts as necessary; – spraying exposed surfaces e.g. unsurfaced haul roads, stockpiles, with chemical binders (consult the Environment Agency); – vegetating exposed surfaces (e.g. overburden mounds) with quick-growing plants; – limiting spillage and facilitating its removal by the use of hard surfaces; – sweeping haul roads and other dusty surfaces; – shaking-off dirt from vehicles and/or providing vehicle-washing facilities; – providing a surfaced road between washing facilities and site exit; – using linings (in loading chutes and lorries); – using closed or sheeted vehicles carrying dry material. • temporarily suspend activities if unacceptable levels of dust cannot be avoided; and • consider the provision of an on-site weather station. 1B.7 Information on site management (i.e. Environmental Management Systems) is given in Appendix B (Environmental Management Systems) to MPS2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England. 1B.8 Operators should consider the measures suggested in Table 1B2 (see page 35) when framing applications and proposing conditions to be attached to planning applications. MPAs should also consider them when assessing planning applications and conditions for new or extended mineral operations, and when reviewing conditions for existing operations.	
Appendix C	1C.1 A dust assessment study is recommended for all new and extended mineral workings. The degree of assessment will be influenced by the type and scale of working and proximity of sensitive land uses in surrounding areas (see Table 1A2 in Appendix 1A). Table 1C1 provides guidance on the key stages for a dust assessment study. This study should be undertaken by a competent person/organisation with acknowledged experience of undertaking this type of work. It may involve the use of computer modelling or other predictions of anticipated deposition rates. The study should identify the operations or processes likely to cause dust, taking into account local climate and topography, and make recommendations for mitigation measures. This will assist the operator and LA in agreeing on measures for the effective control of dust from a site. 1C.2 The scope of any study, including the location and type of equipment to be used for any possible monitoring, should be agreed between the operator, the MPA and the LA's Environmental Health Department, as regulator for quarry processes under the EPA 1990 and subsequently the PPC Regulations and as the LAQM authority. Any monitoring must be: • specific to the type of dust (particles) that it is to detect (i.e. if it is to monitor for particles (PM_{10}) then the equipment should be designed for that purpose); • it must also be quality assured/controlled; and	Advice.

- information provided on calibration and servicing.

Any prediction model used should be agreed between the relevant parties including the limits on its accuracy and precision. Guidance on methods for reducing and controlling dust is given in Appendix 1B.

Table 1C1 Key Stages of a Dust Assessment Study

Stage 1 Establish Existing Baseline Conditions

- Existing ambient conditions should be recorded over a period sufficient to identify seasonal variations in the range of existing conditions which naturally exist (ideally by a dust-monitoring programme). It should take into account, the principal existing dust sources (other than the site) such as air pollution from urban and industrial areas, existing mineral operations, agricultural activities and construction activities.
- The location of residential areas, schools and other dust-sensitive land uses should be identified in relation to the site, as well as proposed or likely sources of dust emission from within the site.
- The assessment should explain how topography may affect the emission and dispersal of site dust, particularly the influence of areas of woodland, downwind or adjacent to the site boundary, and of valley or hill formations in altering local wind patterns.
- The assessment should explain how climate is likely to influence patterns of dispersal by analysing data from the UK Meteorological Office or other recognised agencies on wind conditions, local rainfall and ground moisture conditions.

Stage 2 Identify Site Activities That Could Lead to Dust Emission Without Mitigation

- Potential dust sources should be identified and their potential to emit dust assessed with respect to the duration of the activity or the potential of dust to become airborne.

Stage 3 Identify Site Parameters Which May Increase Potential Impacts from Dust

- This brings together information collected in Stages 1 and 2 with information on sensitive land uses around the site in order to understand how these uses could be affected by dust. Computer-modelling techniques can be used to understand how dust could disperse from a site. Alternatively, a more qualitative approach, relying on professional judgement, could be used to bring together the data collected in Stages 1 and 2.

Stage 4 Recommend Mitigation Measures and Site Design Modifications

- Measures to control dust should be specified and described in terms of their potential to reduce dust and consequent impacts. This is important in paving the way to prepare effective planning conditions.

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MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND, ANNEX 2: NOISE - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
2.1	Introduction …In formulating plans for mineral extraction or related activity and designing mitigation strategies, Mineral Planning Authorities (MPAs) should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused.	Specific policy.
2.2	The Government looks to the minerals industry to keep noise emissions to a level that reflects the highest environmental standards and to work for continuous improvement. Its policy is to secure reduced noise emissions in both urban and non-urban areas and at noise-sensitive areas and properties… …MPAs and others concerned with mineral development should have regard to the national noise strategy, on which the Department for the Environment, Food and Rural Affairs (Defra) consulted in 2001. This aims to map the main sources and areas of noise in order to identify tranquil areas that are to form a national resource, to comply with EC Directive (2002/49/EC) *Assessment and Management of Environmental Noise*.	Specific policy.
2.3	Most noise from mineral operations is created by equipment used for extraction and processing. MPAs and mineral operators should have regard to EC Directives 98/37/EC ('The Machinery Safety Directive') and 86/662/EC (*Limitation of Noise Emitted by Hydraulic Excavators, Rope-operated Excavators, Dozers, Loaders and Excavator-loaders*), which seek to reduce noise emissions from mobile plant and dump trucks. These do not apply to plant with a power rating in excess of 500kW or to a fixed plant. A proposed Directive (*Noise Emission in the Environment for Equipment for Use Out of Doors*), which is likely to come into force in 2005, indicates a further reduction in noise emissions for a range of tracked and wheeled plant. MPAs should be aware of the need to take account of this Directive when considering new applications and reviewing existing permissions after its implementation date. The Government will consider the need for appropriate supplementary guidance on this in due course.	Specific policy.
2.6	Purpose and scope of this annex …However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action and except that MPAs will take due account of this in their decisions on individual applications.	Specific policy.
2.7	General considerations The key planning principle is that noise emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should, therefore include appropriate proposals for the control or mitigation of noise emissions. Those making development proposals and planning authorities considering such proposals should, therefore: • consider the main characteristics of the production process and its environs, including the location of noise-sensitive properties; • make and consider proposals to minimise, mitigate or remove noise emissions at the source using best available techniques (BAT) in accordance with the European Commission's BAT Reference Documents, taking account of the control of some quarry processes under the PPC Regulations; • assess the existing noise climate around the site of the proposed operations, including background noise levels at nearby noise-sensitive properties; • estimate the likely future noise from the development and its impact on the neighbourhood of the proposed operations; • monitor noise emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.	Specific policy.
2.9	Emissions assessments should identify all sources of noise and, for each source, consider the proposed operating locations, procedures, schedules and duration of work for the life of the operation. They should consider what emissions are likely to arise and indicate how and where efforts have been made to control, mitigate or remove these at source. The level and character of the existing noise environment and the location of noise-sensitive properties will enable the necessary noise level goals to be incorporated in the design of proposed operations. Monitoring is required to compare changes in noise level and character caused by the operation to the design goals and to manage them in order to achieve those goals. There must be effective liaison with the affected community, and complaints should be dealt with promptly…	Specific policy.
2.10	Development plans MPAs should set out in their local development documents, policies on noise from surface mineral operations. They should outline the criteria against which they will assess the environmental acceptability of the expected noise emissions from a proposed surface mineral operation, or in reviewing the conditions on existing planning permissions. They should set out the noise limits they will apply in principle and any flexibility entailed in their application. The minerals (or successor) plan should also indicate the extent of technical information required in support of an application.	Specific policy.
2.11	In identifying areas of search and/or proposed sites for mineral working, MPAs should take account of any information on the existing local noise climate, particularly in areas of tranquillity that should be preserved as part of the national resource. For existing mineral operations, whether or not currently subject to conditions relating to noise, MPAs should consider whether the introduction of buffer zones to separate the mineral operation from existing and possible future noise-sensitive development could be helpful…	Specific policy.
2.12	Development control When considering applications for new development or reviewing conditions on existing planning permissions, MPAs should have regard to the environmental	Specific policy.

	acceptability of the likely noise emissions, including the cumulative impact at noise-sensitive properties. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development together with proposals for appropriate control or mitigation.	
2.13	Pre-application discussions Discussions on the issues relating to noise (and other environmental impacts) should take place between the mineral operator and the MPA and the local authority (LA) environmental health department before an application is submitted. Developers should also consult the Environment Agency or the LA as the regulator under the PPC Regulations…	Specific policy.
2.14	MPAs should ensure that operators are aware of the need for and provide all the required technical information. They should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned alongside their own expert advisers. MPAs and operators should ensure that there are appropriate consultations and effective liaison with the community likely to be affected by noise emissions.	Specific policy.
2.15	Environmental impact assessment Where an environmental impact assessment (EIA) is required (DETR Circular 02/99 Environmental Impact Assessment), it should identify the actual working noise emissions from all equipment to be used on site, having regard to established good practice. It should establish the threshold at which significant effects from noise emissions will be likely in or near environmentally-sensitive locations, and demonstrate that emissions can be successfully maintained below this threshold. Sensitive locations include sites carrying national and international environmental designations. The significance of effects from noise should be considered in the context of existing development. The additional impacts of site-attributable noise emissions at noise-sensitive properties should be established.	Specific policy.
2.16	Considering applications When considering applications, MPAs should ensure that operators have provided the required technical information and considered all reasonable options to minimise noise at source. In the light of the existing noise climate of the locality, they should consider the cumulative effects of noise emissions. MPAs should consult the EHO, as the pollution control regulator for the area, and other relevant stakeholders (e.g. English Nature for sites designated for nature conservation value) on the effects of noise emissions, and the adequacy of proposed control or mitigation measures. Where the effects of noise emissions cannot be adequately controlled or mitigated, permission should be refused.	Specific policy.
2.17	When considering granting permission, MPAs should establish what noise-reduction practices will be used and what their effects will be. They should identify all noise-sensitive properties that might be affected and what the effects of the proposals will be on them. MPAs should consider the need for, timing, length and frequency of temporary noisy activities that are outside normal operations but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.	Specific policy.
2.18	Planning conditions Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way that noise emissions are minimised at the source and thereby controlled to acceptable levels…	Specific policy.
2.19	Planning conditions should be used to apply absolute controls on noise emissions with limits normally being set at particular noise-sensitive properties (the terms used are defined in Appendix 2A). This enables the effect of noise to be related most directly to its impact on local people. In some circumstances, however, it might be more appropriate to set the limits at the site boundary or some other point. Subject to a maximum of 55dB(A)L_{Aeq},1h (free field), MPAs should aim to establish a noise limit at the noise-sensitive property that does not exceed the background level by more than 10dB(A). It is recognised, however, that this will in many circumstances, be difficult to achieve without imposing unreasonable burdens on the mineral operator. In such cases, the limit set should be as near that level as practicable during normal working hours (0700-1900) and should not exceed 55dB(A) L_{Aeq},1h (free field). Evening (1900-2200) limits should not exceed background level by more than 10dB(A) and night-time limits should not exceed 42dB(A) L_{Aeq},1h (free field) at noise-sensitive dwellings. Where tonal noise contributes significantly to the total site noise, it may be appropriate to set specific limits for this element. Peak or impulsive noise, which may include some reversing bleepers, may also require separate limits that are independent of background noise — e.g. Lmax in specific octave or third-octave bands — and should not be allowed to occur regularly at night.	Specific policy.
2.20	…Increased temporary daytime noise limits of up to 70dB(A) L_{Aeq}1h (free field) for periods of up to 8 weeks in a year at specified noise-sensitive properties should be considered to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this will bring longer-term environmental benefits to the site or its environs. Where work is likely to take longer than 8 weeks, a lower limit over a longer period should be considered. In some wholly exceptional cases, where there is no viable alternative, a higher limit for a very limited period may be appropriate in order to attain the environmental benefits. Within this framework, the 70 dB(A) L_{Aeq}1h (free field) limit referred to above should be regarded as the normal maximum. LAs should look to operators to make every effort to deliver temporary works at a lower level of noise impact. Operators should seek ways of minimising noisier activities and the noise emissions from them when designing the layout and sequencing of temporary operations, and should liaise with local residents prior to such operations taking place.	Specific policy.
2.21	Conditions on planning permissions should identify the noise-sensitive properties at which the noise limits are set, including the relative sensitivity to noise, which may result in different limits for different types of property, and establish a scheme of monitoring that identifies how, where and when noise is to be measured, who should be responsible and how the results will be assessed and used. Alternatively, a condition should be attached requiring a scheme of compliance noise	Specific policy.

	monitoring to be submitted to and approved by the MPA. Where necessary, the MPA should seek to use Agreements under Section 106 of the Town and Country Planning Act 1990, as amended, to ensure access to noise-sensitive sites for monitoring purposes. Conditions should also be used to secure effective procedures for dealing with complaints. Planning obligations can help to ensure continued effective liaison with the local community and others affected by noise emissions…	
2.22	Monitoring of compliance Monitoring, in accordance with an agreed scheme, should normally be carried out in the free field at noise-sensitive properties and should pick up all noise from static and mobile sources that could affect the property. Where monitoring has to be conducted near the façade of a building, the microphone should be located 1m from the façade at a height of 1.2–1.5m above the ground and a 3dB façade reflection correction should be applied. If monitoring has to be other than at the noise-sensitive property, the noise limit must be converted into equivalent noise limits at the monitoring points using the noise-prediction technique in Part 1 of BS5228 *Noise and Vibration Control on Construction and Open Sites* (1997).	Specific policy.
2.23	Equipment used for monitoring should correspond to that specified in BS-EN 61672-1 *Electroacoustics, Sound Level Meters, Specifications* (2003), capable of measurement in L_{Aeq},1h and be calibrated before and after use. Where it is not possible by use of the pause button to exclude extraneous noise not directly attributable to the operation being monitored, an appropriate allowance should be made…	Specific policy.
2.24	Monitoring should be undertaken during normal production working hours and should avoid meal times and periods of plant maintenance or breakdown. Measurements should ideally be taken in calm conditions or where there is a component of wind blowing from the site towards the measurement location. However, at many sites, such conditions may be rare. BS4142 suggests that measurement should be avoided in conditions of wind speeds greater than 5m/sec, rain and temperatures less than 3°C. BS4142 also requires that a record be kept of weather conditions prevailing during all measurements. Where noise monitoring is undertaken when weather conditions are not ideal and noise levels appear to be of concern, the impact of weather conditions on ambient noise should be considered as well as noise propagation from the site.	Specific policy.
2.25	The detailed requirements for monitoring (location, period and frequency) should be decided on a site-specific basis as part of the monitoring scheme, taking account of any monitoring required under the terms of any authorisation for quarry processes under the PPC Regulations. Unnecessarily onerous requirements should be avoided. Conditions should require operators to report periodically to the MPA on the results of monitoring and to inform it as soon as possible if there is evidence of the limits being breached, including an explanation and a statement of action to remedy it. MPAs and/or EHOs should carry out periodic checks of permitted sites in their areas, particularly if complaints are received, and inform the operator and complainants of the results. If monitoring demonstrates that noise limits continue to be exceeded, MPAs should consider what enforcement action would be appropriate.	Specific policy.
2.26	Conclusion The Government looks to the minerals industries to keep noise emissions at or below the levels set out in this Annex, and to use BAT to reduce the impact of noise from their operations. It expects MPAs to have regard to the principles of this Annex in considering the impacts of noise on the environment and the local community in the minerals and waste development plans, the development documents that will succeed these and in determining applications and reviewing conditions on existing permissions…	Specific policy.

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND, ANNEX 2: NOISE - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
2.1	Introduction Noise from surface mineral operations can have a noticeable environmental impact and is a common cause of complaint. It is a material planning consideration. Because of the social and economic need for mineral working, the effects of noise need to be evaluated and controlled or mitigated to enable mineral operators to conform to modern good practice and to promote sustainable development…	
2.2	…The latter would normally include dwellings, gardens, places of worship, educational establishments, hospitals or similar institutions, livestock farms, some factories or any other property likely to be adversely affected by an increase in noise levels. In *Guidelines for Community Noise* (1999), the World Health Organisation advises that: *"to protect the majority of people from being seriously annoyed during the daytime, the outdoor sound level from steady continuous noise should not exceed 55dB L_{Aeq} on balconies, terraces, and outdoor living areas. To protect the majority of people from being moderately annoyed during daytime, the outdoor sound level should not exceed 50dB L_{AEQ}."*…	
2.4	Purpose and scope of this annex Annex 2 states the planning considerations the Government expects to be applied to noise emissions from surface mineral operations. It covers both surface mineral extraction and surface operations associated with underground mineral extraction, including waste disposal and recycling operations that form an integral part of a mineral working operation. It is not framed with direct reference to other waste disposal and recycling operations. Since these share many operational features with surface mineral operations, waste management operators and waste planning authorities should take account of this Annex alongside Planning Policy Guidance Note 10 (PPG10) *Planning and Waste Management*. Planning conditions on noise should not duplicate controls placed on the developer under the relevant pollution control regime. This Annex does not cover noise from blasting operations, which will be covered in a future Annex to MPS2.	
2.5	This Annex replaces Minerals Planning Guidance Note 11 (MPG11) *The Control of Noise at Surface Mineral Workings* (1993), paragraphs C10-C15 in Annex C of Minerals Planning Guidance Note 3 (MPG3) *Coal Mining and Colliery Spoil Disposal* and paragraphs C21-C22 in Annex C of Minerals Planning Guidance Note 2 (MPG2) *Applications, Permissions and Conditions* (1998), all of which are hereby cancelled. The reference to MPG11 in paragraph 109 of Minerals Planning Guidance Note 14 (MPG14) *Environment Act 1995: Review of Mineral Planning Permissions* (1995) should be read as a reference to this Annex. It covers applications for new operations and extensions to existing sites as well as the review and modernisation of conditions on older permitted operations. This Annex complements the general guidance in Planning Policy Guidance Note 24 (PPG24) (1994) Planning *and Noise* for minerals operations. PPG24 deals with the types of development and land use susceptible to exposure from noise and its general principles are applicable to the control of mineral working as well as of development near to mineral workings.	
2.6	For certain quarry processes, noise emissions are controlled under the Pollution Prevention and Control Act 1999 and the Pollution Prevention and Control (England and Wales) Regulations 2000 ('the PPC Regulations'). Guidance on the interaction between the planning and pollution control regimes is contained in Planning Policy Statement 23 (PPS23) *Planning and Pollution Control*. Enforcement action to control noise when it amounts to a nuisance can be taken under Part III of the Environmental Protection Act (EPA) 1990… …This Annex complements the controls under environmental legislation by: • identifying the significant effects of noise from surface mineral operations (see Appendix 2A); • outlining the considerations to be taken into account; • identifying examples of good practice in the control and mitigation of noise emissions (see Appendix 2B); and • stating how the planning system can keep noise emissions within environmentally acceptable limits without imposing unreasonable burdens on mineral operators. The terminology of noise measurement is explained in Appendix 2A.	
2.8	General considerations Research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved since the publication of MPG11 in 1993. However, there was still a wide range of quality in the way these issues were addressed. The Office of the Deputy Prime Minister (ODPM) and the Department for Trade and Industry (DTI) have, therefore, commissioned research to identify and encourage good practice in the monitoring, prediction and control of noise at surface mineral workings. This will distil and disseminate good practice in relation to background noise monitoring, plant noise emissions, noise prediction and cumulative impact of noise emissions. The results will be disseminated through a good practice guide by mid 2005, in support of the policy on these issues stated in this Annex.	
2.9	…Guidance on the factors affecting noise levels and methods of noise reduction is in Appendix 2B.	
2.11	Development plans …In doing so, they would need to consider the liability for compensation if this were to involve a restriction of existing working rights that would affect the	

	economic viability of the operation to an unreasonable degree. Such consideration would, however, enable the relevant local planning authority (LPA) to be fully aware of the potential effects of noise when controlling other development in proximity to established mineral workings.	
2.13	Development control Pre-application discussions …This will ensure that all parties are fully aware of all the issues and avoid delay in processing the application. Matters that may need to be explored during pre-application discussions include: • the existing noise climate at the locality, including the need to protect tranquil areas as places where noise intrusion should be minimised, and the location of noise-sensitive properties; • the proposed production process, choice of equipment, layout and plant location; • the duration and sequencing of operations; • the characteristics of noise emissions and methods used to predict them; • the likely effects of those emissions, including cumulative effects; and • proposed measures to control or mitigate noise emissions.	
2.18	Planning conditions …The layout and plant location, the sequencing of operations and the hours of working can have significant effect on the level of noise emissions and their impact on sensitive receptors. Enclosure of a noisy plant and the use of acoustic screening and baffle mounds can reduce noise emissions as well as having other benefits. It may be appropriate to incorporate a buffer zone around the operations. This is of particular significance in controlling the encroachment of other development towards an existing mineral working. Where certain species may be significantly affected by noise (e.g. breeding birds), it may be appropriate to restrict certain mineral activities at sensitive times. Guidance on noise reduction is given in Appendix 2B.	
2.20	All mineral operations will have some particularly noisy short-term activities that cannot meet the limits set for normal operations. Examples include soil-stripping, the construction and removal of baffle mounds, soil storage mounds and spoil heaps, construction of new permanent landforms and aspects of site road construction and maintenance. However, these activities can bring longer-term environmental benefits…	
2.23	Monitoring of compliance … Guidance on this is contained in BS4142 *Method of Rating Industrial Noise Affecting Mixed Residential and Industrial Areas* (1997).	
2.26	Conclusion …This Annex will be supplemented on completion of current research by good practice guidance on monitoring, prediction and control of noise at surface mineral workings. This is currently expected in mid 2005.	
Appendix 2A Technical Terminology	UNDERSTANDING NOISE 2A.1 Sound is measured in decibels (dB).When measuring environmental noise, a weighting network is used, which filters the frequency of sound to mimic the characteristics of human hearing. This is expressed as dB(A). The scale is logarithmic. Two machines emitting exactly the same noise level of 80dB(A) produce a total noise of 83dB(A), not 160dB(A). A 10dB(A) increase in sound level represents a doubling of loudness. An average living room would typically have a noise level of about 40dB while busy road traffic would generate about 80dB. 2A.2 Noise emissions are measured using sound level meters, which detect and record changes in sound pressure. Integrating meters also perform statistical analysis and descriptors of interest (e.g. $L_{A90,T}$, $L_{Aeq,T}$) can be determined directly from the meter. Noise from any particular source is reflected by any façade that directly faces that source. Thus, a microphone 1-2m in front of a building would typically yield a level 3dB(A) higher than a free-field measurement (i.e. at least 3.5m away from a façade). 2A.3 Background noise levels can be established by continuous monitoring over a period sufficient to provide a representative picture of the noise environment. Noise prediction requires the combination of noise from each item of plant/activity to arrive at the equivalent continuous sound level ($L_{Aeq,T}$) after taking account of the noise generated, the amount of time in use, the distance of the reception point from the noise generator and whether there will be any screening. Part 1 of BS5228 (1997) provides generalised data on noise emissions from various plant and activities and methodologies for calculation of how much noise is reduced by distance, by barriers and over soft ground. A current ODPM research project aims to provide by mid 2005, good practice guidance on monitoring, prediction and control of noise at surface mineral workings to achieve greater consistency in noise assessments. 2A.4 The effects of noise on the neighbourhood can vary. They include the sensation of loudness, interference with verbal communication, disturbance of work, leisure or sleep, or annoyance. Noise may also have effects on mental and physical health. Individual sensitivity to noise varies. The reaction of livestock and wildlife to noise varies from species to species. Many learn to ignore a regular noise source even including impulsive noise such as bird scarers. Others are easily disturbed. Noise can interfere with communication, mask the sounds of predators and prey, cause stress or avoidance reactions and damage hearing. 2A.5 Noise from surface mineral operations (other than from blasting, which will be dealt with in a separate Annex) arises from engines used to power both static and mobile plant, tipping and processing of material, vehicle movements and the erection, maintenance and movement of plant. The timing, frequency and duration of particular activities may attract more complaints from the public than others, particularly at night or in the evening. Tonal noises such as audible reversing alarms,	

	squealing of dry caterpillar tracks, whistles and sirens and the operation of certain equipment may be particularly annoying. Earthmoving operations to strip soil, form baffle mounds and soil/overburden mounds, the body slap of empty vehicles and plant start-up noise can also give cause for complaint. GLOSSARY OF TECHNICAL TERMS (Adapted from Department of the Environment's Report of the Noise Review Working Party, 1990, HMSO). Ambient noise: Includes both the residual noise and specific noise (from site operations) when present. Residual noise: The ambient noise remaining at a given position in a given situation when the specific noise is suppressed to such a degree that it does not contribute to the ambient noise. Specific noise: Noise from the source under investigation. A-weighting: Normal hearing covers the frequency (pitch) range from about 20 Hz to 20,000 Hz but sensitivity is greatest between about 500 Hz and 5,000 Hz. The "A-weighting" is an electrical circuit built into noise meters to approximate this characteristic of human hearing. Background: The underlying noise level in the absence of the specific noise resulting from the proposed mineral working, usually measured as $L_{A90,\,T}$ (see below). Decibel (dB): The logarithmic measure of sound level. 0 dB is the threshold of normal hearing. 140 dB(A) is the level at which instantaneous damage to hearing is caused. A change of 1 dB is detectable only under laboratory conditions. dB(A): Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB(A) broadly agree with an individual's assessment of loudness. A change of 3 dB(A) is the minimum perceptible under normal conditions and a change of 10 dB(A) corresponds roughly to doubling or halving the loudness of a sound. Free Field: A sound field in which no significant sound reflections occur. $L_{A10,T}$: The "A weighted" noise level exceeded for 10 per cent of the specified measurement period (T). It gives an indication of the upper limit of fluctuating noise. $L_{A90,T}$: The "A weighted" noise level exceeded for 90 per cent of the specified measurement period (T). In BS4142, this is used to define the background noise level. $L_{Aeq,T}$: The equivalent continuous sound level – the sound level of a steady sound having the same energy as a fluctuating sound over a specified measuring period (T). This is used to describe many types of noise, and can be measured directly with an integrating sound level meter. L_{max}: The maximum level of noise measurements over the measuring period. Tonality: The degree to which a noise contains audible pure tones. Broadband noise (across a wider range of frequencies) is generally less annoying than noise with identifiable tones.	
Appendix 2B: Examples of Good Practice in Noise Reduction	INTRODUCTION 2B.1 Surface mineral operations can be, by their nature, noisy, in common with many activities of an industrial character. It is not practicable to stop all noise emissions but a variety of practices can assist in reducing emissions from a mineral operation and reducing its impact on the surrounding area and properties. SITE LOCATION AND LAYOUT 2B.2 While the location of mineral extraction is clearly dictated by the location of the mineral resource, it may be possible to avoid some impacts on noise-sensitive properties without undue effect on the amount of mineral available for extraction. Incorporation of buffer zones into the design of the site and its environs can help to mitigate noise emissions and is particularly useful in resisting the encroachment of new development towards mineral operations. This may assist in keeping available for exploitation, mineral resources of value to the economy and society that would otherwise be sterilised. Not all noise-sensitive properties and land uses are equally sensitive and this should be taken into account in establishing stand-off zones and noise limits. 2B.3 Noise emissions should be fully considered in the design of mineral operations. The site should be laid out in such a way as to minimise the noise impact. Fixed plant and facilities, including maintenance areas, should be located accordingly, taking advantage of any shielding available from the natural topography. It may also be possible to use the quarry face or existing tips, or overburden or soil mounds to shield fixed plant and facilities. Plant that generates noise emissions, including pumps operated at night, should be located as far as possible from noise-sensitive properties. In some cases, it may be appropriate to use mobile plant on the quarry floor rather than a fixed plant at normal ground level. Site buildings may also be grouped to form a barrier between site operations and noise-sensitive properties. Haul roads should not be routed along exposed locations and should have as low a gradient as possible and as smooth a surface as is feasible. CHOICE OF EQUIPMENT 2B.4 Where a choice of methods or plant is available, the quieter should be chosen. For example, it is possible to reduce emissions by 5–10dB(A) using a quieter, earth-moving plant. Mineral operators should ensure they know the level of noise emissions (in comparable working conditions to those expected on site) from a plant under consideration, and manufacturers should include sound level output in the specification of their equipment. Operators should consider the use of an electrically-powered plant with its power source in an acoustic enclosure. 2B.5 Vehicle-reversing alarms, because of their tone, are one of the principal causes of complaints about noise from mineral operations. The need for safety in operation is clearly paramount but consideration should be given to the use of adjustable or directional audible alarms or other alternative warning systems – e.g. white noise alarms give a full spectrum of noise rather than a single tone, which is claimed to be as good as single tone alarms at close range and at a distance, it blends into the background noise. Operators should discuss with the Health & Safety Executive and the MPA whether less intrusive systems can be safely used. Where such alternatives are not feasible then it may be possible to arrange site layout and working practices so that vehicles reverse away from noise-sensitive properties.	

	MAINTENANCE OF PLANT 2B.6 Regular and effective maintenance of plant can play an important role in keeping noise within reasonable standards as well as contributing to greater efficiency in operation. Particular attention should be paid to the lubrication of bearings, the sharpness of cutting edges and the integrity of silencers and any acoustic enclosures around plant. SITE OPERATIONS 2B.7 Some operations are inherently noisy but consideration in use can help to reduce the impact of such operations. Examples of how noise reductions can be achieved include: • minimising the height from which material drops from lorries or other plant, emptying dragline buckets as near as possible to the final placement area of spoil and minimising the clanging of dragline chains and buckets by careful operation; • use of rubber linings in chutes, dumpers, transfer points etc. to reduce the noise of rock falling on metal surfaces; • using simple baffles around washing drums, rubber mats around screening, crushing and coating plants; • enclosing pumps, covering conveyors, cladding the plant (ensuring that cladding is kept free of holes) and keeping noise control hoods closed when machines are in use; • within the constraints of efficient production, limiting the use of particularly noisy plant, limiting the number of items in use at any one time, starting plants one-by-one and switching off when not in use; • avoiding unnecessary revving of engines, reducing speed of vehicle movement, particularly to avoid body slap from empty lorries, keeping lorry tailgates closed where possible, designing and maintaining haul roads to minimise vehicle noise; and • pointing directional noise away from sensitive areas where possible. SEQUENCING OF ACTIVITIES 2B.8 Where possible, workings should be arranged so that earlier operations provide screening for noise-sensitive properties from noise generated by subsequent activities. This could influence both the direction of working of the quarry, subject to any other constraints on it, and the placement of overburden and soil mounds on the site perimeter. For example, working away from noise-sensitive properties means the noise received will reduce with time. If excavation proceeds towards noise-sensitive properties, the quarry face can itself provide protection by acting as a screen to those properties. Mineral operators should liaise with the local community to enable noisy operations near to noise-sensitive properties to take place at times when they would have the least impact on the occupiers. ACOUSTIC SCREENING 2B.9 Acoustic screening can be effective both near the source of noise and near the noise sensitive property. Reductions of 5–10dB(A) can generally be obtained depending on whether the noise is partly or completely screened from the measurement point. 2B.10 Maximum opportunity should be taken in laying out and sequencing operations to enable screening of noisy activities. As far as reasonably possible, sources of significant noise should be enclosed. BS5228 provides advice on various types of acoustic enclosures. Acoustic fencing between the operation and noise-sensitive properties can provide protection against noise, particularly where space is limited. It can be used on its own or in combination with other methods of screening. A simple wall of straw bales can significantly reduce noise emissions. 2B.11 Baffle mounds around the perimeter of the site or at other appropriate locations can make a significant reduction in the exposure of local people to noise from mineral operations. Such mounds are frequently constructed of soil or overburden that has to be removed and stored to enable access to the mineral. 2B.12 The process of baffle mound construction, though short-lived, is itself one of the noisiest aspects of mineral working. It will generally be appropriate for higher noise levels to be allowed for a limited period to allow construction to take place. While this will lead to temporary inconvenience, the longer-term benefits will be substantial. MPAs and mineral operators should liaise with the local community to explain this. 2B.13 Acoustic screening can also be used at the point of impact. It may, exceptionally, be appropriate to reduce the impact of noisy operations by installing acoustic secondary glazing or acoustic fencing at noise-sensitive properties. Requests to do so should be considered in the light of advice on the use of planning obligations in DETR Circular 01/97 Planning Obligations. Action at the property should not be seen as an alternative to reducing noise at source, or a means of legitimising higher noise limits. It should be seen as an additional safeguard to the quality of life for local residents to be used in exceptional circumstances and only with the agreement of owners/occupiers of noise-sensitive properties.	
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MPG3: COAL MINING AND COLLIERY SPOIL DISPOSAL - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
6	National land use policy considerations The objectives of sustainable development for minerals planning are therefore: i. to conserve minerals as far as possible, whilst ensuring an adequate supply to meet the needs of society for minerals; ii. to minimise production of waste and to encourage efficient use of materials, including appropriate use of high quality materials, and recycling of wastes; iii. to encourage sensitive working practices during minerals extraction and to preserve or enhance the overall quality of the environment once extraction has ceased; iv. to protect areas of designated landscape or nature conservation from development, other than in exceptional circumstances where it has been demonstrated that development is in the public interest; and, v. to minimise impacts from the transport of minerals.	National objectives fundamentally underpin national policies. Objectives flow through into actual policies.
8	In applying the principles of sustainable development to coal extraction, whether opencast or deep-mine, and to colliery spoil disposal, the Government believes there should normally be a presumption against development unless the proposal would meet the following tests: i. Is the proposal environmentally acceptable, or can it be made so by planning conditions or obligations? ii. If not, does it provide local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission? iii. In National Parks and Areas of Outstanding Beauty (AONBs), proposals must also meet the additional tests set out in paragraphs 28 and 29 below. iv. Proposals within or likely to affect Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs) must meet the additional tests set out in paragraphs 30 and 31. v. Proposals within the Green Belt must meet the additional test in paragraph 36 below. MPAs should ensure that this general approach is incorporated into their development plan policies as soon as possible. The Government recognises that the costs and benefits of an opencast proposal can best be assessed by the communities and local authorities who know the area best and are most directly affected. Accordingly the Government takes the view that, subject always to local plan procedures, normal rights of appeal and the provisions of this guidance, MPAs' assessments of the environmental acceptability or otherwise of individual proposals should normally prevail.	Specific policy. Should consider the use of the term 'surface' coal mining rather than 'opencast'.
11	Development Plans Formulation of policies and plans Within the overall framework set out in paragraph 8 above, policies and proposals in the development plan should be consistent with national policies and strategic and regional planning guidance.	
12	Policies and proposals should take into account the principal impacts of coal working and spoil disposal, both separately and together, such as visual intrusion, water pollution, air pollution, noise, dust and traffic and the level of activity that a particular locality and its community can reasonably be expected to tolerate over a particular period, as well as the potential benefits such as job opportunities and the scope for landscape and amenity improvements through working and subsequent restoration. Equally, other development plan policies should ensure that provision for other development does not unnecessarily sterilise coal resources, nor allow development to encroach on existing mineral operations and thus increase the level of environmental impact to an unacceptable level.	
13	The Coal Authority and MPAs should liaise closely at an early stage of the development and mineral planning process. The Coal Authority should also be approached by MPAs in the consideration of individual planning applications… …Coal operators should engage in full and open dialogue with MPAs and provide them with information on the extent of their known reserves and forward plans. MPAs should provide operators with information on the planning and environmental constraints within the authority area… …For existing deep and drift mines consented under the Town and Country Planning (General Permitted Development) Order 1995 ("the GPDO") operators should also supply information on their forward mining plans in accordance with the DTI Code of Practice.	Specific policy.
14	*Scope for environmental improvements* Policies should give priority to proposals which will bring about environmental improvements…	
15	*Safeguarding of existing businesses and opportunities for future investment* Policies should be explicit that where there is material evidence that coal extraction and related development would have an adverse effect on efforts to attract or retain investment in an area, this is a material consideration which should be taken into account in deciding planning applications.	
16	*Other minerals* Policies should make provision for proposals where extraction of coal from a site would facilitate the efficient and economic working of other mineral deposits on that site in an environmentally acceptable way… … opencast sites provide one of the few viable sources of fireclay and every opportunity to produce it from a proposed site should be examined provided that the site can be properly restored and the overall proposal meets the tests in paragraph 8.	
17	*Comprehensive working*	

	Where a forward programme of potential sites has been agreed in line with paragraph 13, policies should provide for proposals which would facilitate the comprehensive working of the coal deposits in a locality, subject to planning and environmental constraints and the acceptability of individual proposals in accordance with paragraph 8.	
18	*Cumulative impact* Some areas have been subjected to successive opencast developments over a number of years. Policies should make clear that, where appropriate, the cumulative impact of a proposed opencast development on the community and the environment will be taken into account.	Specific policy.
19	*Extensions to sites* Developers should provide the MPA with as much information as they have available on the extent of the resources in a proposed site, and the way in which they propose to work them, before or at the time a planning application is made to avoid subsequent unplanned applications for site extensions in area or depth… … Policies should therefore make clear that any proposal to extend an opencast site, in area or depth, will have to meet the criteria in paragraph 8. Where the proposal is likely to have significant effects on the environment an Environmental Impact Assessment should be required.	Specific policy.
20	*Repeat applications* Section 70A of the 1990 Act (as inserted by section 17 of the 1991 Act) provides that an MPA may decline to determine a planning application if it is made within two years of the Secretary of State refusing a similar application, either on call-in or appeal, and there has been no material change in circumstances since that decision. In addition there should be a general presumption against approving applications for development of a site, or extensions to an existing site, where a similar application has been refused previously unless there has been a material change in circumstances since that decision.	
21	*Commencement and completion of development* Policies should makes clear that, if planning permission is granted, conditions will be imposed specifying the date by which development must be begun (or the planning permission will lapse) and dates for the completion of coal extraction, restoration and aftercare…	
22	*Sterilisation* In principle, it is desirable to secure coal extraction prior to new permanent development above coal reserves. Policies should therefore take into account the benefit of avoiding sterilisation of coal reserves by other forms of development, within a reasonable timescale and in an environmentally acceptable way, provided the proposal can meet the tests in paragraph 8 above…	
23	*Deep mines and drift mines* In general, proposals for drift mines raise similar issues to those for deep mines. The impact is largely determined by the size, location and duration of the operations. Policies should deal with the principal impacts arising from ancillary surface development at underground mines, for example: visual intrusion, noise, dust, traffic, the location and design of buildings and storage areas, coal washing and lagoons, and site restoration; and with the potential effects of subsidence, including the potential hazard of old mine workings, the treatment and pumping of underground water, monitoring and preventive measures for potential gas emissions; and the method of disposal of colliery spoil.	Specific policy.
24	*Colliery spoil* … continuity of production at existing deep and drift mines in part depends upon the availability of land for spoil disposal. Plans should therefore set out policies which make provision for this.	Specific policy.
25	Policies should include consideration of viable alternatives to local tipping where that is precluded by environmental constraints or where there is a reasonable expectation that environmental gains will outweigh any increased costs, and should encourage use of the evaluative framework ("Procedural Manual Evaluative Framework: Assessment of Alternative Colliery Spoil Disposal Options" HMSO 1990).	Specific policy.
26	The coal industry should make every effort to keep spoil production to a minimum and to seek ways of reducing the environmental impact of its disposal, including flexibility in local arrangements for disposal; continued efforts to improve restoration techniques; and, by seeking opportunities for the recycling of spoil for use as secondary aggregates (see Annex A). It should supply current and projected spoil production figures to the MPA at an early stage so that a forward strategy on spoil disposal can be compiled for the whole area, and should cooperate in the discussion and preparation of forward programmes.	Specific policy.
27	**Nationally designated and other Sensitive areas** Development plans should also contain policies, where relevant, for the protection of National Parks, AONBs, SSSIs, NNRs, ancient monuments, archaeological and other cultural interests, agricultural land and Green Belt. Advice on the national policies that apply is set out below.	
28	*National Parks and AONBs* PPG7 - "The Countryside - Environmental Quality and Economic and Social Development" (February 1997) sets out in detail Government planning policies for all forms of development in National Parks and AONBs. The Government considers that major developments should not take place in these areas, and the New Forest and the Norfolk and Suffolk Broads, save in exceptional circumstances. Because of the serious impact that minerals developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all minerals development should be demonstrated to be in the public interest before being allowed to proceed.	Strong policy statement.
29	Consideration of minerals applications in such areas should normally include an assessment of: i. the need for the development, in terms of national considerations of mineral supply;	

	ii. the impact of permitting the development, or refusing it, on the local economy; iii. whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iv. any detrimental effect of the proposals on the environment and landscape and the extent to which that should be moderated; and iv. in the case of extensions to existing mines, the extent to which the proposal would achieve an enhancement to the local landscape.	
30	*SSSIs and NNRs* Mineral proposals within or likely to affect SSSIs should be the subject of the most rigorous examination. When considering such proposals planning authorities are required to consult EN on such proposals and should take account of the advice in PPG9 - "Nature Conservation".	
33	**The Historic Environment** …The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features. When determining applications for extraction, MPAs should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings.	
34	…The protection of the historic environment, whether individual listed buildings, conservation areas or the wider historic landscape will need to be taken fully into account both in the formulation of authorities' planning policies and in development control.	
35	*Agricultural Land* The Government's policy, as set out in PPG7, is that within the principles of sustainable development, the best and most versatile agricultural land (defined as land in Grades 1, 2 and 3a) is a national resource for the future, and considerable weight should be attached to the protection of such land because of its special importance... …When considering the allocation of land for minerals development, and deciding any application for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects… … where the best and most versatile agricultural land is involved the restoration and aftercare steps should enable the retention of its longer term potential as a high quality agricultural resource.	
36	*Greenbelt* Proposals for coal extraction and spoil disposal may also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance 2: Green Belts (PPG2). Applications to extract coal or deposit spoil in the Green Belt should be tested against the highest environmental standards. If permission is granted, stringent conditions should be attached to ensure the site is well operated and restored to the highest standards.	
37	Mineral Local Plans and Part 2 of UDPs Structure Plans and Part 1 of UDPs should set out strategic policies. Mineral Local Plans and Part 2 of UDPs should carry forward those policies and set out clear criteria against which individual proposals will be assessed. These criteria should include consideration of: - • the effects on local amenity; landscape; features of archaeological, architectural, historic or natural interest; and, agriculture; • the effect on hydrology or hydrogeology; • the environmental impacts of transportation of minerals and waste; • the cumulative impact on communities in the locality of proposals; • the effect on efforts to attract or retain investment in the area; • any environmental improvements or other material planning benefits to the community likely to result from the proposals; • the employment and other economic effects of the proposals; • the avoidance of sterilisation of mineral resources; • the efficient and economic working of other mineral deposits in an environmentally acceptable way; • the avoidance of unplanned piecemeal working of deposits; and, • where development is acceptable in principle, the range of conditions likely to be needed to mitigate or control any potential adverse effects.	
38	Minerals Local Plans and Part 2 of UDPs should also indicate any areas where coal extraction and the disposal of colliery spoil may be acceptable in principle subject to development control criteria being met in any particular case, as well as those areas where working or disposal is unlikely to be acceptable or where coal resources are to be safeguarded for future working…	Specific policy.
39	Handling specific development proposals Proposals for coal extraction and spoil disposal can give rise to considerable concern because of the potential environmental impact operations can have on a locality. Operators and MPAs should therefore have regard to the code of practice prepared jointly by the then County Planning Officers' Society and COALPRO ("Planning for Quality - A Code of Practice", September 1996).	Specific policy.
44	**Environmental impact assessment** …In any event, mineral applications in National Parks and AONBs should be subject to the most rigorous examination and EIA should always be required. Similar considerations apply to proposals which would affect SSSIs or other areas which have been designated nationally or internationally as requiring special consideration.	
45	**Environmental duty** In addition to any requirement for EIA, section 53 of the Coal Industry Act 1994 imposes an environmental duty on the coal industry. In formulating coal mining	Specific policy.

	proposals requiring planning permission, operators are required to have regard to the desirability of the preservation of natural beauty, the conservation of flora and fauna and geological or physiographical features of special interest and the protection of sites, buildings, structures and objects of architectural, historic or archaeological interest; and, must formulate proposals for the adoption of measures to mitigate any adverse effect of the development on such matters. In considering coal mining proposals, MPAs must have regard to the extent to which the operator has complied with the duty.	
49	**Consideration of applications** …Where material planning objections to a proposal outweigh any benefits to the local community then, as stated in paragraph 8(ii) above, planning permission should not normally be granted.	Specific policy.
64	Restoration and aftercare However, where the operator can demonstrate to the satisfaction of the MPA that they are covered by an established and properly funded industry guarantee scheme, which would adequately finance a programme of restoration and aftercare in the case of default by the operator, the Government considers that a bond should not be necessary.	Specific policy.
65	… In all cases, operators should ensure that sufficient finance is available to enable them to meet fully restoration and aftercare conditions. Equally, MPAs should have regard at all times to the need to avoid imposing costs on coal operators that are larger or longer than strictly required to meet best standards. In those cases where security funding or bonds are required, the sums should be released progressively as restoration proceeds…	Specific policy.

MPG3: COAL MINING AND COLLIERY SPOIL DISPOSAL - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
1	Introduction This guidance provides a policy framework for mineral planning authorities (MPAs) and the coal industry in England to ensure that the extraction of coal and disposal of colliery spoil only takes place at the best balance of community, social, environmental and economic interests, consistent with the principles of sustainable development.	
2	The Government's White Paper on the Conclusions of the Review of Energy Sources from Power Generation (Cm 4071, October 1998) sets out proposals to achieve the Government's central energy policy objective of ensuring secure, diverse and sustainable supplies of energy at competitive prices. This objective takes in the Government's concern for the environment, health and safety and a fair deal for all consumers, as well as its commitment to all aspects of sustainable development. While UK coal is available, and the generators continue to choose it, UK coal contributes to our energy diversity and supply. In addition, the Trade and Industry Committee (Fifth Report of the Trade and Industry Committee on Energy Policy, June 1998) pointed out that, opencasting provides employment, can assist the ceramics industry through enabling access to associated clays, and has a role in clearing dereliction. The White Paper notes that opencast is generally more flexible than deep-mined coal, as regards long-term production, and is usually lower cost; and that it can reduce the overall costs of operations of companies with both opencast and deep-mine interests, but recognises that there are important environmental and planning issues involved. Overall, decisions on coal sourcing are a matter for individual generators and no specific role is identified for opencast coal in particular.	
3	It has also been suggested that, because most English deep mined coal is high in chlorine, generators will not purchase it unless they can be assured of supplies of low chlorine coal such as opencast with which to blend it. The findings of research carried out for the Department on the need for opencast for blending on this account are not conclusive [Chemical Variation and End Uses of Coal at the Present and in the Future, CRE Group Ltd for DETR, February 1999, ISBN 0 95 351960 0]. While generators regard a coal feed with an average chlorine content above a certain level as presenting an unacceptable risk to their boilers it has been impossible to obtain hard evidence of risks and costs, and whether these could be overcome by price rather than blending, due to issues of commercial confidentiality A few deep mines produce coal with a chlorine content which would appear to meet the needs of generators with little or no need for blending. More importantly, large quantities of low chlorine coals are readily available on the international market. In the absence of conclusive data the Government therefore does not regard a need for coal blending as a significant issue for the land use planning system, nor does it see a role for the system in influencing the operation of the market in coal.	
4	It is not therefore for the planning system to seek to set limits on or targets for any particular source or level of energy supply; nor to predetermine the appropriate levels of coal to be produced by underground or opencast mining. It is for individual operators to determine the level of output they wish to aim for in the light of market conditions, and for MPAs to determine the acceptability of individual projects in accordance with the principles of the land use planning system having regard to the following policies and all other material considerations. A contract with any of the public electricity generators does not confer any special status in terms of planning legislation and policy.	
5	National land use policy considerations The Government's consultation paper on a revised UK strategy for sustainable development ("Opportunities for change", February 1998) set out four key objectives which underlie sustainable development: • social progress which recognises the needs of everyone; • effective protection of the environment; • prudent use of natural resources; and, maintenance of high and stable levels of economic growth and employment. Whilst the use of minerals benefits the economy, there can be conflicts between the extraction of resources and environmental aims. The Government recognises that mineral working generally can have a significant environmental impact and often takes place in areas of attractive countryside. Although large quantities of mineral resources exist and it is unlikely there will be a problem of physical exhaustion of resources in absolute terms, it is becoming increasingly difficult to find sites that can be worked without damaging the environment to an extent that local communities and society in general find unacceptable.	
7	Opencast coal working differs from many other types of mineral working due to the amount of overburden that has to be removed, and stored, to access the coal; the use of large engineering plant and machinery; and the need, often, to transport the coal won over significant distances. On the other hand, the large amounts of material that have to be removed means that, through careful restoration, original landforms can be recreated, or more attractive ones produced over time. In some cases, opencasting can clear derelict and despoiled land, or remove land instability from old mineral workings, and thereby restore the land ultimately to a better condition than it was before. However, the Government takes the view that, although some sites are capable of being well restored, opencast mining can be extremely damaging to the environment and amenity of a locality whilst it is taking place, and the restored landscape can take many years to mature. The proposals for restoration, and the extent to which the proposal provides local or community benefits must be weighed against the severity of the harm likely to be caused during the duration of the development and the time it would take for the landscape to regenerate following restoration.	
9	Development Plans The planning system, and the preparation of the development plan in particular, have a key part to play in meeting the Government's objectives of ensuring that development and growth are sustainable.	

10	Policies for the development and other use of land, including the extraction of minerals, are set out in statutory development plans drawn up under the Town and Country Planning Act 1990 (the "1990 Act") as amended by the Planning and Compensation Act 1991 (the "1991 Act"). MPAs are required to draw up a minerals local plan covering the whole of their area. In metropolitan areas Unitary Development Plans (UDPs) should contain minerals policies. Close cooperation between MPAs and local planning authorities will help to minimise potential conflicts. In the event of a conflict between a minerals local plan and a local plan, the more recently adopted (approved) provisions prevail.	
11	**Formulation of policies and plans** PPG1 - "General Policy and Principles MPG1 provide advice on planning for both the MPAs minerals industry. PPG12 provides preparation of development plans. Annex E to sets out bodies that should be consulted in addition relevant department local authority matters concerning pollution control. this is contained PPG23 Control (England).	
13	The Coal Authority has an important role to play in making available to MPAs information in its possession on the location and extent of coal deposits and the areas subject to operating and exploration licences… …Annex D gives further advice on the role of the Coal Authority. ..In this way operators and MPAs can discuss and cooperate in the production of forward programmes of potential sites for coal extraction which take full account of planning and environmental restrictions, subject always to planning permission being obtained for individual proposals in accordance with the criteria in paragraph 8. Such programmes can provide continuity for the industry, certainty for the local community, and avoid the problems of piecemeal applications and cumulative impact. It will be a matter for the MPA's judgement as to whether or not the environmental disturbance to a locality is minimised by a major site which may last a number of years, and can justify the commensurate investment in such matters as rail transport and tree planting to provide mature screening, or by a succession of planned smaller sites which avoid the problems of scale... …Guidance on the permitted development rights for underground coal mining under the GPDO is given in Annex B to Minerals Planning Guidance 2: Applications, Permissions and Conditions (MPG2), July 1998).	
14	*Scope for environmental improvements* …for example, by the restoration of previously derelict areas or by the stabilisation of unstable ground, or where landscape enhancement or a contribution to biodiversity can be achieved. Where there is overall environmental benefit to be gained the Government expects the industry and MPAs to give priority to proposals involving derelict sites, particularly those which would enable former colliery sites to be released quickly for beneficial new uses. This should reduce pressure on sites which are more environmentally sensitive and assist in enabling dereliction to be cleared more quickly than would otherwise be possible.	Debatable whether this should be retained as policy.
16	*Other minerals* …Opencast seams can be found in conjunction with other minerals such as fireclay or brick clay, and may also be covered by peat or sand and gravel deposits. In such cases, it is important that the opportunity to work these other minerals commercially is fully explored with mineral operators. Where opencast coal mining is justified on its own merits, co-ordinated working of other minerals on the site can, reduce the need to extract these minerals elsewhere, and prevent the unnecessary sterilisation of valuable mineral resources. In particular…	
19	*Extensions to sites* However there may be exceptional circumstances, eg unexpected geological faulting, where such an application becomes necessary. Lateral extensions to existing workings require a new grant of planning permission. An application to increase the depth of existing consented workings will also require a new planning permission unless the deeper seam to be worked was excluded from the original permission only by a planning condition in which case it will simply involve an application to vary the conditions attached to the existing planning consent. However, both lateral extensions and increases in depth can extend the severity and duration of the impact on the environment and local amenity.	
21	*Commencement and completion of development* …The time by which development is begun for the purposes of mineral working is defined in the Town and Country Planning (Minerals) Regulations 1995 - see Annex A to MPG2 (July 1998).	
22	*Sterilisation* … Where underground mining is involved, it may be preferable to postpone major surface development until the risk of subsidence has passed or ensure that precautionary measures are taken in the design and construction to minimise potential damage. Guidance on the considerations to be taken into account where development is proposed on unstable land is given in Planning Policy Guidance 14: Development on Unstable Land (PPG14), and the forthcoming Minerals Planning Guidance 5: Stability in Surface Mineral Workings and Tips (MPG5) (consultation draft issued in June 1998).	
24	*Colliery spoil* Over the years, a great deal of research has been carried out into realistic alternatives to local tipping, including local and long distance disposal schemes and additional research into mining techniques to reduce the amount of spoil arising. Nevertheless,…	
30	**Nationally and other sensitive areas** *SSSIs and NNRs* Some SSSIs are of particular importance and have additional designations conferred upon them. NNRs established by EN under the Wildlife and Countryside Act 1981,	

	are areas of national, and sometimes international, importance, where primary use is for nature conservation. Some SSSIs are of international importance and have been designated Special Protection Areas (SPAs) under the European Community Directive on the Conservation of Wild Birds (Directive 79/409/EEC). Others have been identified as potential SPAs. In addition some SSSIs are likely to be considered of international importance as Special Areas of Conservation (SACs) under the European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Directive 92/43/EEC). Specific legally binding procedures apply to the consideration and approval of development proposals likely to affect these European sites. PPG9 explains these and also advises that the Secretary of State will normally call in planning applications which are likely significantly to affect sites of international importance and recognised national importance.	
31	The UK is also a signatory to the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Cmmd 6465). Contracting parties are required, inter alia, to designate sites which satisfy certain criteria. The total area of listed wetlands should be maintained wherever possible, if necessary by compensatory measures to offset any loss. There is also a general obligation for the contracting parties to include wetlands conservation considerations within their national land-use planning system.	
32	*Other environmentally important areas* Planning authorities may designate other environmentally significant areas in their development plans, such as special landscape areas, or areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not be as high as that to be given to the nationally designated areas referred to above.	Just general advice.
33	**The historic environment** Mineral exploration and working may damage or destroy irreplaceable sites, structures and remains of historic or archaeological interest that are of importance to the national heritage… … Planning Policy Guidance 16: Archaeology and Planning (PPG16), and the revised CBI Minerals Environment Charter, underline the importance of identifying, as early as possible, the likely presence and importance of any archaeological sites liable to be affected by the proposed development. This should involve early consultation with the County Archaeological Officer or equivalent (listed in PPG16). Where remains are scheduled under the provisions of the Ancient Monuments and Archaeological Areas Act 1979, the consent of the Secretary of State for Culture, Media and Sport is needed before works may proceed. Where buildings are listed, listed building consent will be required for their total or substantial demolition and may be required for their alteration. Where buildings are situated in a conservation area, Conservation Area Consent will be required in most cases where demolition is proposed.	
34	Planning Policy Guidance 15: Planning and the Historic Environment (PPG15), as amended by Appendix E of DOE Circular 14/97 gives advice on the protection of the historic environment, World Heritage Sites and listed buildings and conservation areas… … No additional planning restrictions follow from the inclusion of a site in the World Heritage list. However, inclusion does highlight the outstanding national and international importance of the site as a material consideration to be taken into account by planning authorities in determining planning applications and by the Secretary of State in determining cases on appeal or following call-in.	
35	*Agricultural land* …However, unlike most other forms of development, land from which minerals have been extracted offers the potential for restoration of land to its former use, or to an acceptable new use. Therefore,… … Such considerations include whether the land should be restored to an agricultural afteruse and the standard of reclamation likely to be achieved. Restoration and aftercare conditions are intended to achieve land fit for the intended use. Where restoration to agriculture is proposed, the objective will normally be to restore the land to its previous agricultural quality, or better if reasonably practicable, in accordance with Schedule 5 to the Town and Country Planning Act 1990. Amenity or forestry afteruse may be an appropriate alternative to agricultural use, but…	
37	Mineral Local Plans and Part 2 of UDPs MPAs may also wish to have regard to the Countryside Commissions' advice on landscape and countryside issues set out in their publication "Opencast coal mining: advice on landscape and countryside issues" (CCP434, 1993) and to English Heritage/Countryside Commission/English Nature's published guidance "Conservation Issues in Strategic Plans" and "Conservation Issues in Local Plans".	Guidance more than policy.
38	…The extent to which it will be possible to identify particular areas where extraction or spoil disposal may be acceptable in principle, and the level of detail that can be shown in relation to possible sites, will depend upon local circumstances and the level of knowledge about the resource. MPAs may therefore wish to indicate: • broad areas of search; or, • the extent of the shallow coalfield and the constraints within that area; or, • a combination of the two. Whichever approach is adopted should be based on material land use planning considerations.	
40	Handling specific development proposals Before applications are submitted to the MPA for determination, and as early as possible, operators should explain fully the nature of their proposals, indicating the ways in which they intend to deal with the environmental factors that will arise. Concerns are most effectively addressed through full sustained public information and dialogue. It is desirable for developers to discuss their proposals with the relevant local authorities and any other organisations whose interests may be affected by the development. Technical issues such as drainage, access arrangements, working methods, pollution control, restoration, after-use and stability should also have been discussed with the	

	appropriate bodies.	
41	In the case of proposals for the disposal of colliery spoil, the Department's Procedural Manual Evaluative Framework (see paragraph 25 above) is designed for use during the stage leading to the submission of a planning application to the MPA and enables the systematic investigation of a range of alternative schemes in order to compare the advantages and disadvantages of each option against various financial and environmental factors. There is a statutory duty to consult with and obtain approval from the Environment Agency with regard to the siting and condition of any spoil disposal to land.	
42	In all cases the MPA will need information about likely environmental effects as part of the material accompanying an application for planning permission. Operators should seek the MPA's views on the preparation of Environmental Statements (ES) appropriate to the scale of the proposal and the sensitivity of its location.	
43	**Environmental impact assessment** Environmental Impact Assessment (EIA) is an important technique for ensuring that the likely effects of new development are fully understood and taken into account before development is allowed to go ahead. Where proposals for mineral development are likely to have significant effects on the environment, applications will need to be subject to EIA under the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999 and an Environmental Statement (ES) prepared. DETR Circular 2/99 explains the provisions of the regulations and gives advice on their implementation. Further advice is given in the DOE guide "Environmental Assessment: A Guide to the Procedures" (HMSO, 1989) which will be updated in due course to reflect the new regulations. From 14 March 1999 EIA will be mandatory for all proposals for opencast mining where the surface of the site exceeds 25 hectares. Below this threshold, new sites, and modifications to existing sites, will still require EIA if they are likely to have significant environmental effects.	
44	However, the Secretary of State takes the view that, by their nature, all proposals for new coal extraction, and alterations to existing coal developments, are likely to require EIA…	
46	**Environmental duty** The Secretary of State attaches great importance to the effective discharge of this duty. Proposals not prepared in accordance with this duty are most unlikely to meet the requirements of policies based on this Guidance Note. Apart from the careful selection of the site, this duty can be best be discharged by ensuring that the proposal meets the criterion in paragraph 8(i) above and by proposing to the MPA appropriate conditions and by high standards of operation and restoration. The Planning Officers' Society is proposing to develop a "Coal Mining Award Scheme" to encourage such standards and reward excellence and good site management in England and Wales. The Secretary of State welcomes this proposal, as far as it affects England, and encourages all interested parties to work towards bringing it into operation at the earliest practicable date.	
47	**Post-application consultations** Following receipt of a planning application for coal extraction or spoil disposal, the MPA should undertake the consultations specified in the Town and Country Planning (General Development Procedure) Order 1995 ("the GDPO"). In addition, they should also consult MAFF where there is likely to be an agricultural afteruse. The Forestry Commission should be consulted where areas of forest are likely to be affected by the development or where forestry planting forms part of a reclamation scheme. The Countryside Commission should be invited to comment on any application which has a major impact on the landscape, Regional Parks, Country Parks, National Trails and Community Forests. MPAs should consider the likely effect on a National Nature Reserve, SSSI, or other area of ecological, geological or geomorphological importance, of any planning application at or in the vicinity of such a site, so as to decide whether or not to consult English Nature (EN). MPAs should bear in mind the possibility that certain developments may affect a site some distance away. Sites and Monuments Records (SMRs) should be consulted where proposals affect features of archaeological interest or the built heritage. SMRs will involve English Heritage as appropriate. English Heritage needs to be consulted directly on proposals which would affect Scheduled Monuments and grade I and II listed buildings.	Standard planning procedure.
48	**Consideration of applications** Section 54A of the 1990 Act makes it clear that planning applications for specific projects are to be determined in accordance with the development plan unless material considerations indicate otherwise. The approach that should be taken to the consideration of individual applications is set out in paragraphs 39 to 46 of PPG1. It should also be noted that ancillary operations such as crushing, grading and screening, will require authorisation under Part 1 of the Environmental Protection Act 1990. Advice on the approach to be adopted in relation to the interaction between planning and pollution control in the consideration of planning applications for coal extraction or colliery spoil disposal is given in Annex B.	
49	MPAs will need to consider in detail the full range of social, community, economic and environmental issues that are relevant to the planning decision. For its part, the industry should demonstrate that it has addressed all potential adverse effects either by amending the proposals, or providing appropriate compensatory or mitigation measures when preparing planning applications. The industry should demonstrate that its proposals take all practicable steps to satisfy the environmental concerns on site operation and restoration. The objective must be to ensure that any adverse effects on local communities, environmental damage or loss of amenity caused by mineral working are kept to an acceptable level, and do not outweigh the benefits to the local community of proceeding with the development…	Good practice.
50	**Need and alternative sites or sources of supply** Where the major argument advanced in support of an application to extract coal is that the need for the development outweighs the planning disadvantages inherent in it, the MPA should have regard to the possibility of meeting that need from alternative sites or sources of supply. Generally, the greater the planning objections to a particular site, and the greater the reliance on need to overcome those objections, the more material will be the possibility of supplying the market from less damaging alternative	Not substantive policy.

	sites or sources of supply. In considering the approach to this issue, applicants and MPAs may wish to note the judgements of Simon Brown J in Trusthouse Forte Hotels Ltd v Secretary of State for the Environment and Northavon District Council [1986] JPL 834 and the Court of Appeal in SSE v P G Edwards (17 March 1994).	
51	Applicants should include a description of the main alternatives considered in their Environmental Statement	Not substantive policy.
52	**Consideration of impacts and conditions** Annex C to this guidance note gives advice on the main specific impacts to be considered when determining whether or not planning permission should be granted for coal mining and on ways of dealing with them if it is. The industry and MPAs should also have regard to recent Departmental research reports on the effects of surface mineral workings: "The Environmental Effects of Dust from Surface Mineral Workings" [Arup Environmental, 1995, HMSO ISBN 0 11 753186]; "The Environmental Effects of Production Blasting from Surface Mineral Workings" [Vibrock Limited, in association with University of Leeds, Department of Mining and Mineral Engineering and Swift Research Partners, 1998, The Stationery Office, ISBN 0 11 753412 9]; and, "Environmental Impact of Traffic Associated with Mineral Workings" [Entec UK Ltd, 1998, The Stationery Office, ISBN 0 11 753476 5]. Paragraphs 40-60 of, and Annex C to, Minerals Planning Guidance 2: Applications, Permissions and Conditions (MPG2), July 1998) gives advice on minerals planning conditions, and the Planning Officers' Society have published a "Good Practice Guide for Mineral Planning Conditions" (November 1995).	
53	In recent years concern has been expressed about the effects of opencast coal mining on health. The Committee on the Medical Effects of Air Pollutants looked at limited evidence published in 1992. It concluded that the results were consistent with an association between the opening of an opencast mine and an increase in local asthma consultations but felt that local awareness of the opening of the mine and concern about possible effects on health were plausible explanations of the association and that further work would be needed to sustain a causal hypothesis. The Department of Health jointly with the Department of the Environment, Transport and the Regions is therefore currently funding a project designed to look at the effects of opencast mining on health. This research is now due to be completed in the first half of 1999 and it has not therefore been possible to have regard to its findings. In the meantime, the industry and MPAs should adopt the precautionary principle and ensure that proposals and developments do not result in unacceptable levels of airborne dust. Where planning permission is granted stringent conditions should be attached to control and monitor dust emissions. Further advice will be issued once the results of the research are known.	Precise airborne dust limits would be a policy. This is just general guidance.
54	The Department intends to prepare a revised version of Minerals Planning Guidance 11: The Control of Noise at Surface Mineral Workings (MPG11), April 1993) giving guidance on all the main environmental impacts associated with surface mineral working as soon as practicable. Meanwhile, and in any event, where planning permission for coal extraction or the disposal of colliery spoil is granted, the Secretary of State expects MPAs to impose planning conditions requiring the highest standards of operation, restoration and aftercare to ensure that any impacts on the environment or local amenity are minimised, and to ensure that compliance with those conditions is monitored and enforced. In that connection the industry can play its part by initiating annual independent environmental audits of operating sites and making the results freely available to the MPA, members of the public and other interested persons, either independently or as part of an individual company's accreditation under an environmental performance or monitoring system such as EMAS or ISO 14001. For the future the Government is considering empowering MPAs to charge fees to cover the costs of monitoring and enforcing minerals and waste permissions. The Department intends to consult on this proposal in due course.	Not substantive policy.
55	**Planning obligations** DOE Circular 1/97 ("Planning Obligations") gives advice on the proper use of planning obligations made under section 106 of the 1990 Act (as substituted by section 12 of the Planning and Compensation Act 1991). Where the environmental impacts of coal extraction or colliery spoil cannot be sufficiently mitigated, or controlled, by means of planning conditions alone, it may be appropriate for MPAs to seek planning obligations to ameliorate the harm or to secure relevant and legitimate local benefits which outweigh that harm, in line with paragraph 8 above. Community benefits, for instance, in the form of new community facilities or community trust funds may be proposed by the developer or suggested by the planning authority. However, any such benefits offered or sought should not be treated as material considerations unless they meet the tests set out in DOE Circular 1/97 - ie: i. they are necessary to make a proposal acceptable in land use planning terms; ii. they are relevant to planning; iii. they are directly related to the proposed development; iv. they are fairly and reasonably related in scale and kind to the proposed development; v. they are reasonable in all other respects.	
56	<u>Restoration and aftercare</u> It is established Government policy that restoration and aftercare of appropriate quality will be required to make mineral workings fit for beneficial after-use and environmentally acceptable. This may include restoration to agriculture, forestry, management for nature conservation, provision of public open space, recreation or other development. Applications for extraction of coal or disposal of colliery spoil should include information which demonstrates that the site can be restored satisfactorily. The omission of such information is likely to delay determination of the application. If proposals for restoration are inadequate, unsatisfactory or impracticable, planning permission should not be granted. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved. Detailed advice on restoration and aftercare is given in Minerals Planning Guidance 7: The Reclamation of Mineral Workings (MPG7), November 1996), which includes a general review of the technical requirements which need to be considered when planning applications are drawn up.	Not substantive policy.

57	Proposals for restoration and aftercare of coal extraction and spoil disposal sites should form an important part of the information submitted with a planning application and in earlier informal discussions. This information should be sufficiently detailed for a realistic view to be taken of the after-use intended, including phasing of progressive restoration and the final landform and landscape intended. This should normally be agreed with the MPA in advance of planning permission being granted, after discussions with the district council, site operator, land owners, farming, local community and other relevant local interest groups (eg nature conservation). The Countryside Commission's advisory booklet on opencast coal mining (see paragraph 28 above) provides useful advice on landscape and countryside issues. Advice on the restoration of colliery spoil tips and lagoons is given in the Department's research report "Restoration and revegetation of colliery spoil tips lagoons [RichardsMoorhead Laing Ltd 1996 HMSO ISBN 0 11 753315 7].	
58	Aftercare proposals should also take account of the need to manage on-site and off-site drainage, and any creation of water features, including any advice from the Environment Agency who should be consulted, particularly when preparing any restoration and aftercare scheme where it is intended to impound or create an impoundment of water or create or divert a river or stream.	
59	At the time planning permission is granted, both the principles and, as far as possible, the details of restoration should be agreed - although in some cases it may be sensible for some details to be agreed at a later stage. The intended after-use must also be decided when planning permission is granted, but in the case of longer term sites the detailed aftercare programme may more appropriately be settled in a scheme agreed subsequently. Further advice is given in MPG7.	
60	In the cases where agriculture is the intended after-use, it is essential that site working, restoration and after-use should be considered thoroughly at the outset, and in full consultation with MAFF, environmental and other interests as appropriate. In cases where forestry is the intended after-use, consultations on its appropriateness and on aftercare requirements should be with the Forestry Commission.	
61	In areas designated for their nature conservation or landscape importance, the advice of EN or the Countryside Commission may be appropriate. EN are also willing to offer technical advice on opportunities to restore land to nature conservation value or create new wildlife habitats.	
62	The coal industry has, in the past, sought specialist advice from the Forestry Commission (who are a prescribed consultee in the case of proposals for a forestry after-use) and bodies such as the Woodland Trust and in an attempt to seek more creative proposals for restoration and aftercare of coal extraction sites and spoil disposal schemes. Such consultation is to be encouraged to promote best practice. In appropriate areas, the project teams for the National Forest in the Midlands and the twelve Community Forests, will be able to provide local advice.	
63	MPAs have wide powers to impose and enforce restoration and aftercare of sites through conditions. Planning permission runs with the land for the benefit of any person who has a sufficient legal interest in it. Where an operator, whether or not they are the landowner, breaches the terms of the planning permission by failing to comply with restoration or aftercare conditions, whether for reasons of financial failure or otherwise, the MPA may take enforcement action to remedy that breach. If the operator fails to take action to remedy the situation, the MPA may themselves enter the land and carry out the necessary works and recover their costs from the landowner.	
64	However, there has been increasing concern about the risks of opencast coal sites being left unrestored or restoration being severely delayed in the event of financial failure by a coal operator. The Government therefore considers that, having regard to the principle of the polluter pays and to the uncertainty that would otherwise arise for local communities, financial guarantees are a legitimate and appropriate means for reassuring the local community of operators' commitment and ability to restore sites properly and timeously.	
65	Financial guarantees do not mean that the full cost of restoration must be put on deposit at the outset, but it should build up commensurate with the pattern of activity/extraction, recognising that for larger sites there will be a requirement for progressive restoration requiring a stream of funding to be available at various stages. It is recognised that such guarantees may pose an additional burden on coal operators but they represent a more formal recognition of operators' responsibility for which they ought to provide. They should also end the considerable uncertainty that exists for communities about the longer term prospects for the amenity of the area… … Advice on different forms of financial guarantee is given in Annex D to MPG7 (November 1996).	
66	**Liaison committee** Should permission be granted, particularly for major developments, developers should aim to set up a liaison committee or advisory panel consisting of representatives of the developer, the contractor working the site, local authorities and members of the local community and other interested bodies (including EN where appropriate) to ensure that the local community has a full understanding of working practices and that the developer and contractor are fully aware of local community concerns. This should help to ensure that work proceeds smoothly with minimum inconvenience to those most affected, and that legitimate local concerns about the operation of the site can be addressed quickly.	Not substantive policy.
67	**Monitoring** The Government attaches particular importance to the continuing production of consistent statistics on coal extraction, in particular the opencast coal statistics collated by the Planning Officers' Society, and encourages the full cooperation by all parties in the continuing collection of this data.	
68	**Speeding the planning system** The Government accepts that proposals for coal extraction or spoil disposal are often complicated and can arouse intense local controversy, and that it is important that all material considerations receive careful attention. Nevertheless, the Government expects MPAs to determine applications expeditiously. The coal industry itself can help to reduce possible delay by entering into pre-application discussions about its development proposals with the planning authority, the local community, relevant local bodies such as the appropriate Wildlife Trust and the appropriate statutory bodies - eg EN - at an early stage before formal submission of the application. Applicants should aim	

	to provide authorities with all the information that is needed to determine the application, including in all normal cases an appropriate Environmental Statement covering all relevant issues. If the authority needs further information, every effort should be made to ensure that requests for its provision are comprehensive at the outset. MPG2 provides further guidance on the drawing up and determining of planning applications.	
69	**Compulsory access to land and suspension of rights of way** The minerals industry in general can obtain compulsory powers of access to minerals under the provisions of the Mines (Working Facilities and Support) Acts 1966 and 1974 ("MWFSA"), subject to an order in the High Court, and can apply to the planning authority under the 1990 Act for orders extinguishing or temporarily stopping up public rights of way. The coal industry currently has access to specific powers in the Opencast Coal Act 1958 for gaining compulsory access to land for the purposes of prospecting for or working coal, and to orders extinguishing or temporarily stopping up public rights of way. Guidance on these specific powers, which expire at the end of 1999, is given in Annex E. Thereafter, the opencast coal industry will have to rely on the general powers in the MWFSA. An applicant for any right under the MWFSA must in the first instance submit his application to the Secretary of State for Industry. The Secretary of State must refer the application to the High Court unless he is satisfied that the applicant has not made out a prima facie case. A pre-condition to the grant of all rights under the MWFSA is that the applicant must satisfy the Court that the grant of a right is expedient in the national interest and that it is not reasonably practicable to negotiate a private arrangement. Further information on the MWFSA can be obtained from the Department of Trade and Industry or the Minerals Division of the Royal Institution of Chartered Surveyors.	
Annex A	**Annex A: Colliery Spoil and Disposal** <u>Introduction</u> A1. Colliery spoil or minestone is the waste material that is extracted in the process of mining coal. In the past, mining methods produced relatively little waste above ground as coal excavation by hand was highly selective and most waste was separated and left underground. Nowadays, coal is won at the face by machine and in doing so the dirt bands interspersed with the coal seams together with seat earths and parts of the seam roof are also extracted. With intensive mechanised methods it is judged to be more efficient to raise the dirt mixed with the coal to the surface rather than to separate this underground. The coal is separated from this mixture at the surface to produce a marketable product. A2. The 1981 report of the Commission on Energy and the Environment "Coal and the Environment" drew attention to the problems of colliery spoil disposal, estimating that 62 million tonnes would be produced in 1992. In response, in their White Paper "Coal and the Environment", the Government announced their intention to establish an agreed policy framework for spoil disposal which would accommodate the expressed concerns of all parties. As part of that commitment the Government commissioned Ove Arup and Partners to conduct a major study in the Yorkshire - Nottinghamshire - Derbyshire coalfield. As a result of this work the consultants in co-operation with the local authorities and British Coal prepared an Evaluative Framework. This is to be used to identify the various options available for individual spoil disposal schemes and to assess the economic and environmental effects of each so that considered judgements can be made between the alternatives. It has been designed for use during the stage leading to submission of a planning application by the industry to the MPA. It may also assist decisions about the best source of fill for large scale reclamation sites. A3. Not all of the spoil generated results in a waste product for disposal on the surface. Around 15% is left underground while a small amount remains in the saleable coal. Power stations currently accept between 13 and 18% ash content (including inherent ash content) in coal supplied for coal fired boilers. A4. The amount of colliery spoil requiring disposal every year is further reduced by a small amount being sold commercially straight from the coal processing plant (CPP). There are several potential uses for colliery spoil in engineering and construction fields. However, spoil is in competition with many other sources of waste product, as well as primary aggregate and it has generally only been competitive to use it when demand arises close to a colliery or tip. A5. Research has been carried out to assess the suitability of minestone as a low cost coastal protection medium. The results of this work indicate, however, that unprotected reefs of minestone designed to dissipate the force of erosive waves, thus protecting the coastline, would themselves be excessively eroded. A6. Projects designed to demonstrate the potential of colliery spoil as a means of reclaiming derelict land and the feasibility of remote disposal, have been carried out at Welbeck near Wakefield and at Glews Hollow near Goole. A7. Potential sites for spoil disposal have been investigated. These range from underground (backstowing deep mines), through natural or man made voids (old quarries etc) and surface tips, to marine disposal. The different options all have environmental consequences of varying impact. It is important that full account be taken of these before a particular option is selected. In practice it is a question of striking a balance between the environmental and economic costs and benefits - which the Evaluative Framework assists. **Coal content** A8. Since the 1930s the separation of coal from spoil has improved greatly in efficiency, thereby reducing the amount of combustible material present in modern spoil heaps and therefore reducing the potential for such heaps to spontaneously combust. *Composition of waste* A9. Unburnt colliery spoil consists mainly of shale containing small amounts of bituminous and carbonaceous matter, argillaceous sandstone, fireclay, ironstone and limestone. It may range in size from boulders to cobbles and clay particles and can be divided broadly into two categories, coarse and fines, each of which have different disposal characteristics. *Coarse discard* A10. This is defined as waste material with a particle size between 0.5mm and 150mm. On average it constitutes around 75% of spoil production. In general, it does not	

normally present a handling problem because it is relatively free draining and is dewatered to an acceptable standard by screening before it leaves the coal processing plant (CPP).
A11. Coarse discard is produced in the coarse washery of the CPP as a result of coal/dirt separation based either on a dense medium or Baum process. The former uses an immersion liquid, such as a suspension of ground magnetite in water within which the coal particles rise due to their lower specific gravity and the heavier dirt particles fall. The Baum jig works by agitating the coal/dirt mixture in water, thus inducing separation. Comparing the two processes, Baum jigs require a more consistent feed and do not give as efficient a cut off point between coal and shale as in the dense medium process; they are, however, cheaper to operate. There is no appreciable difference in the characteristics of coarse discard produced by either process.
Fine discard
A12. This material has a nominal maximum particle size of 0.5mm although a large proportion can be of much smaller size being less that 10 microns. It can constitute up to 25% of spoil production. Because of the particle size distribution the material is not free draining and therefore presents greater handling and disposal problems than coarse discard. It generally consists of fine clay and shale particles.
A13. Fine discard is produced in the fines washery of the CPP at the end of the froth flotation process. This process separates the fine coal and fine dirt by adding oil and a frothing agent to the coal/dirt suspension in a conditioner. The fine coal rises to the surface because the air bubbles attach themselves to the coal particles and cause them to float. This procedure is, however, not used in all CPPs. In some plants, where the fines mixture has a high spoil content, fine coal extraction may not be economic and all fines produced from the washery are treated as discard. In other plants, where the ash content is low, the whole of the fines may be dewatered by a combination of a settling tank, slurry cyclone and filter to produce a filter cake which can be blended back with the larger coal and sold.
A14. Where a froth flotation process is used, the fine discard sinks to the bottom and is referred to as tailings. This discard is very dilute and is further treated with a flocculent which causes the particles to settle in a thickener, leaving clear water overflowing the rim of the thickener tank for reuse within the CPP. At this stage the thickened tailings resemble a sludge with a moisture content of between 60% and 70%.
A15. The tailings sludge can then either be disposed of by liquid discharge to lagoons or be further dewatered.
A16. A steady increase in the proportion of fines within the spoil reflects a trend occurring throughout the world. It can be attributed in the UK to:

- the progressive introduction of power loading at the coal face;
- the use of dust suppression techniques underground (which may degrade the spoil);
- the mechanisation of cutting development dirt, most of which now goes through the CPP against the previous method of bringing it out separately;
- the increasing proportion of shales as mining has moved eastward in the central coalfields;
- the proportion of coal which is mechanically cleaned (these being wet processes).

Disposal
A17. Disposal represents the activities of handling, transport and placement. Disposal locations are predominantly land based, on farm land or in existing voids close to the originating colliery. A small proportion of spoil is subject to marine disposal.
A18. Land based tipping accounts for over 90% of the total annual disposal of spoil nationally. Most of this is tipped on spoil heaps with a small proportion being used in local land reclamation projects, for example filling old mineral working voids or raising the level of low lying low quality agricultural land. The remainder is tipped on conventional spoil tips including lagoons.
A19. Spoil heaps and lagoons which contain refuse from a mine or quarry are tips, and are subject to the Mines and Quarries (Tips) Act 1969 and the Mines and Quarries (Tips) Regulations 1971. Stockpiled materials which are held for sale or comprise material required at a later stage in the operations are not normally considered as constituting quarry refuse and hence are not tips within the meaning of the relevant legislation.
A20. The majority of surface tipping comprises the construction of spoil heaps immediately adjacent to the originating colliery. Spoil tips can be constructed of either coarse discard or a mixture of coarse discard and dewatered treated fines.
A21. Given normal weather conditions, the construction of coarse discard tips is a relatively straightforward operation since the material is free draining due to its large particle size. Handling of dewatered fines in the form of semi-solids or solids is more difficult because the small grain size retains water and reduces the material's shear strength.
A22. There are two methods of constructing tips made from treated fines and coarse discard. The first method involves mixing the two materials at the CPP where it is then transported either by conveyor or dump truck to the tip. The second method involves transporting the materials separately to the tip where the pressed cake is laid and then capped by a layer of coarse discard. The latter method typically has better drainage and handling characteristics although marginally more land is active at any one time.
A23. When lagoons are incorporated in tips the two types of discard, coarse and fines, are handled separately. The coarse discard is used to construct the banks and the tailings are pumped in suspension to the impoundment formed by the banks where the particles are allowed to settle. The supernatant water is drawn off, usually for return to the CPP. When the lagoon is filled and the tailings have dried out sufficiently to support the weight of tracked vehicles, the lagoon can be over tipped with coarse discard as a prelude to restoration.

A24. The land requirement of a lagoon depends on its size. Many lagoons are between 1 and 2 hectares but can be much bigger. Normally, the use of lagoons has to be phased, with usually at least two or three being required at any one time, one being built, one being filled and one drying out, to allow the site to be restored progressively. Lagoons are only a practicable proposition when the topography is gentle and where the slopes do not exceed 1:12. Lagoon areas are usually close to the colliery to reduce pipeline and pumping costs.
A25. Tailings are pumped to lagoons in suspension in water. Hydraulic pipelines are a relatively cheap means of transport compared with road and rail charges for dry spoil and are generally not intrusive environmentally. Wet fines can be disposed of off site, pumping the material into old quarries or sand and gravel pits; lagoons can also be created in opencast voids. This has the advantage of reclaiming land back to agricultural use and taking pressure off limited tipping land closer to the colliery. Wet fines can also be transported off site by road or rail tanker.
A26. In 1981, CENE recommended to the Government that lagoons should be avoided whenever possible and that new mines should be designed to prevent the discharge of untreated tailings. The siting of lagoons should have due regard to the Environment Agency's Groundwater Protection Policy.
A27. In some cases, it is possible to use spoil to backfill voids that have either been left unrestored by previous mineral operators or are currently being created. Such schemes can have positive environmental effects: returning derelict or degraded land to a positive afteruse which might otherwise have been delayed or never carried out due to a shortage of materials for restoration; preventing the sterilisation of other mineral sources and the possible creation of unrestored land, if extraction and backfilling with spoil can be planned and executed together; diverting or delaying pressures for the use of other land for spoil disposal, particularly land of good agricultural quality or of special landscape value, or sometimes a combination of both. However, consideration must be given to whether the voids have a particular ecological, scientific or historical importance and the potential impact on these of backfilling.
A28. Of the different types of mineral voids, hard rock quarries usually have the greatest capacity because they tend to have deep, steep sides. Use of limestone quarries or chalk pits will usually require special protective measures to ensure that there is no pollution of ground water.
A29. Sand and gravel or clay pits are relatively shallow and require a large surface area to provide sufficient capacity for several years output of spoil from average sized collieries. Special precautions may need to be taken against seepage and/or scour if pits are located in river valleys.
A30. The capacity of voids created through opencast mining is usually rather limited. Because of the way the coal is extracted, little if any spoil is produced and the bulking of the overburden and sub-soil may lead to an increase in volume. However, opportunities to create a new land form with extra capacity for spoil disposal are sometimes possible.
A31. There may be opportunities for the co-disposal of refuse and colliery spoil into existing voids. Colliery spoil is a relatively good final cover material for refuse and can also be used to create a landform with suitable hidden voids for waste. The two waste products can also be tipped together into old quarries or opencast sites, although this requires strict operational controls. The tipping of waste, with or without colliery spoil, into a void such as a disused quarry, would require a waste management licence. Licences are granted under the Waste Management Licensing Regulations 1994 (SI 1994 No 1056, as amended) by the Environment Agency.
A32. There is some potential for minestone as secondary aggregate. Just under 2% of the annual production is used in this way. Most of this is used as fill material in road embankments and building sites. However, its variable quality and restricted geographical incidence, making for high transportation costs, means that the potential market for minestone as secondary aggregates is limited.

Environmental Impact and Restoration

A33. The principal environmental effects of operational unreclaimed tips are visual intrusion, noise and dust from vehicle movements, loss of land and potential water pollution. After reclamation, the main impacts are the changed appearance and ecology of the land, and possible modifications in the pattern of land use.
A34. There is, however, an important distinction to be drawn between older tips and new tips. Broadly speaking, the extent of the adverse impacts while a tip is being used, and before reclamation, will be less for more recent tips and greater for older ones because of the improvements in tipping practices introduced by the industry. Older spoil heaps are generally conical or irregular in shape and have high profiles. These tips can only be reclaimed by major regrading sometime after operations have ceased when, with sensitive treatment, they can be integrated into the landscape.
A35. In recent years, the industry has substantially changed its tipping practices, largely as a means of meeting greater safety standards. These practices ensure that there is little possibility of tips becoming unstable. Burning on new tips has also been eliminated. Environmentally the main effect of this increase in safety standards has been that tips are now constructed with lower profiles which means that while they are generally less intrusive, they also take up more land.

Local land reclamation

A36. Local land reclamation is an alternative to local tipping which is generally no more costly and can result in environmental gain.
A37. As indicated in MPG7, certain characteristics of colliery spoil materials can present problems for the establishment and successful longer-term performance of vegetation on reclaimed colliery spoil tips. The key factors are:

- acidity - associated with the oxidation of the mineral pyrites [iron sulphide], a common constituent of coal spoil;
- salinity - some spoils, especially those in north east England, may have high soluble salt content;
- infertility - in the absence of natural soils for restoration, spoils are deficient in plant-available macro nutrients;
- steep slopes - the lower gradients of more recent tips, and of some regraded older tips, provide greater opportunities for different after-uses, are easier to cultivate and plant, and are less prone to erosion of soils or other surface materials;

	• surface compaction -spoil heaps are compacted for stability purposes and to exclude air to minimise the possibility of combustion. However compaction in the immediate surface layers of tips creates problems for establishment and growth of vegetation. • extreme surface temperature - the black colour of many spoils, if used as the final "soil" layer, can lead to high surface temperatures during sunshine. A38. Reclamation practices for colliery spoil tips have developed over the years. The Forestry Authority has published guidance "Reclaiming Disturbed Land for Forestry" [Bulletin 110, by A Moffat and J McNeill, HMSO 1994], which includes advice on tree planting for both colliery spoil and opencast coal sites. More recently advice on the restoration and revegetation of colliery spoil waste tips and lagoons was published in the Department's research report "Restoration and revegetation of colliery spoil tips and lagoons" [Richards, Moorhead and Laing Ltd, 1996, HMSO ISBN 0 11 753315 7]. *Remote land reclamation* A39. Remote land reclamation is much more costly than local land reclamation or disposal and it would have to be on a larger scale to be viable. The number of sites which are available and appropriate for such use is limited, but the possibility of remote land reclamation should not be ruled out entirely. *Backstowing* A40. In practice it is not practicable to introduce backstowing at existing mines which have not been designed with that in mind. Nor is it likely to be economic or safe at major new deep mines. In any case, it is not feasible to stow all of the dirt produced in mining due to the character of some of its constituents, eg fines and filtered tailings cake. The problems associated with handling this material which has a high clay content have yet to be satisfactorily solved. Separate provision would therefore have to be made for its disposal; mixed with other spoil and tipped locally, or transported elsewhere. However, backstowing is carried out at some existing drift mines and should be considered for smaller new drift mines particularly where the surface area is limited and where the working methods are compatible with backstowing. This method of spoil disposal is dependent on suitable voids being created by extracting the coal. Obviously these will not be available in the initial phases of mining and the need for temporary surface storage would have to be addressed. A41. In addition, a surface tipping facility would be needed for operational purposes since it would be impossible to regulate the supply of material suitable for underground stowage to match the equipment capacity exactly, and provision must be made for maintenance, breakdown etc. A42. However, even though underground stowing cannot completely replace surface tipping the area of land required would be substantially reduced and therefore less land would be withdrawn from agricultural and other uses. The importance of this will vary from site to site; in some cases tip management control and reclamation can be used to improve the colliery aspect by screening the activity and to upgrade inferior land. *Marine disposal* A43. International commitments restrict the marine disposal of such waste to inert material of natural origin which has not undergone any treatment which would make its chemical constituents readily available to affect the surrounding environment. A44. Disposal on the beaches and at sea requires a license from MAFF under the Food and Environment Protection Act 1985. Any further beach deposit of minestone is likely only to be in the form of a constructive placement to maintain sea defences. The pipeline discharge of liquid tailings requires consent from the Environment Agency under the Water Resources Act 1991. *Commercial use* A45. The Government policy is to encourage the use of secondary materials in construction. In 1989 it was estimated that only 10% of aggregates used in construction came from secondary and recycled materials. It is important that where they are technically, economically and environmentally acceptable as substitutes for primary materials, mineral and construction wastes should be used. A46. The commercial use of spoil makes virtually no impact on spoil disposal from current production although considerably more is exploited from existing heaps. The most significant commercial use of spoil is as bulk fill in civil engineering works. However, major disadvantages of not being as close to major engineering works as alternative material, and of being highly price sensitive to transport costs, constrain attempts to promote its use. A47. MPG6 - Guidelines for Aggregates Provision in England and Wales advises on the potential for using colliery spoil as secondary aggregate.	
Annex B	**Annex B: Planning and Pollution Control** B1. All coal extraction and colliery spoil disposal is potentially subject to pollution control under the statutory nuisance provisions of Part III of the Environmental Protection Act 1990. Coal processes which are subject to authorisation under Part I of the Environmental Protection Act 1990 are: - the crushing, grinding or otherwise breaking up of coal or coke or any other coal product; - the screening, grading or mixing of coal, or coke or any other coal product; - the loading or unloading of coal, coke or any other coal product. For this purpose "coal" includes "lignite"; these processes do not require authorisation if carried out at an "exempt location" as defined in SI 1991/472 (as amended); and, no process carried on underground requires authorisation. B2. Detailed guidance on the standards of air pollution control for these processes is given in PG3/5(95) "Secretary of State's Guidance - Coal, coke and coal product processes" issued in December 1995.	Guidance to help overcome a specific issue.

	B3. Planning conditions should not seek to control through planning measures matters that are the proper concern of the pollution control authority, except where planning interests can be clearly distinguished. However, the winning and working of minerals is an operation which continues over a number of years and the "development" is not complete until the site has been worked out and restored. The MPA will therefore be concerned with the totality of the impact of the development on amenity and other land uses, whether or not part of the development is subject to pollution control. B4. Where processes prescribed for control under Part I of the Environmental Protection Act 1990 form part of the application for planning permission for coal extraction or colliery spoil disposal, material planning considerations may include the potential loss of amenity caused by pollution, and the MPA will need to take them into account in determining whether planning permission should be granted. MPAs should, where appropriate, impose planning conditions on any permission minimising such impacts. Such conditions must relate to land use planning considerations and may include conditions regulating such matters as noise, dust, hours of working etc where these are necessary to protect local amenity or other land uses. However, planning conditions should not duplicate pollution controls on prescribed processes. It is essential therefore that MPAs should consult the relevant pollution control authority at an early stage about the extent to which matters should be addressed through planning or pollution control mechanisms, and to provide the pollution control authority with an opportunity to comment on pollution control in respect of the development as a whole.	
Annex C C10-C15 and C20 – C24 replaced by MPS2 so are not included.	**Annex C: Specific Impacts** **Introduction** C1. In order to ensure that sites are designed and operated to environmentally acceptable standards, the following paragraphs give advice on the approach to be adopted in considering the main impacts that may arise from proposals for the extraction of coal or colliery spoil disposal and ways in which those impacts can be controlled or minimised. Each case must be considered on its merits, and MPAs and the industry will therefore need to consider the applicability and practicability of the advice in the circumstances of the particular proposal. **Visual Impact** C2. The degree of visual impact which coal extraction and spoil disposal can have will depend on a number of factors such as the topography of the area and the proximity to main transport routes and residential or other sensitive areas. C3. Visual disturbance can arise from a number of sources intruding into the landscape which in many cases will be rural in character. The development of the site prior to spoil disposal; the erection of soil and overburden mounds at opencast sites prior to, and during the period of extraction; and the presence of plant and mobile machinery. For deep mines and drift mines, the main visual intrusion is likely to arise from the surface development, coal stocking and on-site tipping areas, including lagoons. The need to minimise visual disturbance should be taken into account when planning the site operation, including the location and design of buildings and storage areas and provision for screening. Mounds are built as a matter of routine at the boundary of opencast sites, but to achieve maximum benefit they need to have regard to the topography of the area and the local landscape. C4. Similarly, the potential visual impact of spoil disposal sites can be further reduced by limiting the maximum height of any tip or mound to blend with the natural topography. Tip slopes should also be limited to within safety limits as well as taking account of the surrounding landscape. C5. Tree planting and landscaping may reduce visual impact but this solution offers little advantage in the short term before the planting has matured. Trees need to have been planted well in advance of development taking place if an effective screen is to be established. Existing trees may give some screening and should therefore be retained where possible. C6. For opencast sites, topsoil and subsoil mounds are normally formed close to the site boundary and while they can be a short-term source of disturbance, they can serve not only as baffles against noise and dust but also as a visual screen to the site. These mounds should be protected from unnecessary trafficking before being grassed down and kept weed free. Careful consideration of the local topography and landscape is required if the maximum screening effect is to be achieved by these mounds. The siting, construction, content, surface treatment and profiles of soil and overburden mounds will often be important planning considerations. The Ministry of Agriculture, Fisheries and Food also has an interest in the construction of mounds since their form and landscape treatment could affect the potential of soils for reinstatement purposes. However, in some cases, views over the working site may be preferable to an intrusive mound, or some other form of barrier - eg fencing - may be preferred. C7. In all cases, consideration should also be given to minimising the likely impact of restored sites on the surrounding environment. Where appropriate final contours should have regard to the topography of the area and the local landscape, including the provision of hedges, walls and the planting of small copses and woodland where these are characteristic of the area. C8. MPAs should therefore consider the need to agree or specify conditions relating to: -the sequence of working, -progressive restoration procedures, -pre-planting and planting requirements, -the siting of plant and its visibility, -geometrical screening and the nature of landscaping, -the location and shape of soil and overburden mounds and waste heaps, -the use of conveyors, -the treatment of haul roads	All detailed guidance.

-soil handling, stripping, storage and re-instatement of soils and associated remedial treatments.

C9. The industry should:

-have a positive approach to the landscape,
-plan ahead for:

- planting,
- direction of working,
- progressive restoration,
- siting of process plant,

-pre-plant, if possible before making a planning application,
-seek to agree landscaping requirements with the MPA and only depart from them by agreement,
-ensure that site engineers have, and are seen to have, the will to provide a visually acceptable operation,
-have a good housekeeping policy, keep the site tidy and well maintained, including paintwork.

Blasting

C16. Blasting is a technique used in both underground and opencast coal extraction. There are three effects associated with blasting, namely, ground vibration, air blast wave and projected rock particles (flyrock). The extent of the disturbance will be dependent on the type and quantity of explosive, the degree of confinement, the distance to the nearest buildings, the geology and topography of the site and, for opencast sites, as with quarries for other materials, the atmospheric conditions (temperature inversions, foggy and hazy conditions lead to increased noise levels). Ground vibration is measured in peak particle velocity (mm/sec) and at a level of about 12mm/sec cosmetic damage to residential properties is possible. However, planning conditions should generally set average levels at a 95% confidence rate well below this. If a planning authority is considering imposing planning conditions to protect the surrounding areas from blasting they should consult HM Inspectorate of Mines and Quarries since it is important to ensure the planning conditions are not at variance with good and safe practice under the Mines and Quarries legislation. British Standard 7385 Part 2, 1993 provides further guidance.

C17. MPAs should therefore consider the need to agree or specify planning conditions relating to the:

-levels of ground vibration and overpressure to meet the 95% confidence level, monitored over an appropriate period,
-prohibition of the use of surface detonating cord and plaster blasting
-control of flyrock, after advice from the Health and Safety Executive.

C18. The industry should:

-carry out face surveys
-design blast, including the size of maximum instantaneous charges (MICs) and detonating sequence, to minimise environmental effects,
-check the setting out of holes and record any deviations,
-revise the design if necessary,
-use correct stemming,
-monitor the blast to provide feed-back for future blast designs
-limit ground vibration by:

- minimising MICs, eg by using decked charges
- taking especial care in unusual situations, eg in corners,

-minimise overpressure by:

- avoiding the use of surface detonating cord where possible
- minimising the area of heave and the total charge

- avoid flyrock by:

- ensuring the design is thorough and follows the Quarries (Explosives) Regulations 1988
- moving fragmented rock horizontally rather than vertically
- using toe rather than collar priming/detonation
- using screen nets when in any doubt.

C19. Further advice is contained in the Department's research report "The Environmental Effects of Production Blasting from Surface Mineral Workings" [Vibrock Ltd, in association with University of Leeds, Department of Mining and Mineral Engineering and Swift Research Partners, 1998, The Stationery Office, ISBN 0 11 753412 9].

Water

C25. There is a substantial body of legislation concerned with water pollution problems and additional planning conditions will only be necessary where there is no other adequate control.

C26. The principal outflow of water from both underground mines and opencast sites is caused by the water that has to be pumped from the excavation to keep the working dry. Suspended soils and acidic drainage from solution of pyrites and other minor minerals in the waste rock are the main potential pollutants, and even quite small amounts or concentrations, if they find their way into natural watercourses, can be harmful to fluvial habitats. Similar concerns arise with the run-off of water from colliery spoil tips. Leaching from waste heaps is also a potential source of pollution.

C27. Water pollution is an important consideration in assessing coal extraction and colliery spoil disposal applications, although the effects can be difficult to assess particularly if the existing pattern of drainage is complicated and the actual mining operations involve diverting or altering streams in the area. The consent of the Environment Agency is required prior to discharging water into water courses. It lays down conditions on the quality of water which is acceptable.

C28. Factors such as the collection and treatment of surface water run-off may limit the choice as to how the site is to be worked or spoil deposited and where overburden mounds or spoil tips are to be located.

C29. The effects of coal extraction and spoil disposal on drainage patterns and watercourses should be considered not only in respect of the period when a mine is in operation, but also when extraction has been completed and artificial controls such as pumping have ceased. The disposal of surplus water is an integral part of mining operations. Such water has a number of sources including water pumped from underground, surface drainage from stocks and buildings, drainage from tips and effluent from coal preparation plant. If these matters have not been thoroughly assessed during the extraction and restoration phases of coal mining, the legacy may prove difficult to deal with. Problems can often be caused by overflows of polluted water from abandoned mines into rivers and other water courses. Mine operators should take appropriate action to avoid pollution when abandoning a mine, as required under the Water Resources Act 1991. The Mines (Notice of Abandonment) Regulations 1998 (SI No 892 1998) require operators to notify the Environment Agency where it is proposed to abandon an underground mine.

C30. For the protection of groundwater, MPAs should:

- have regard to the Groundwater Regulations 1998
- have regard to the EA's policies on groundwater protection
- after consultation with the EA, consider the need to agree or specify planning conditions, to support the protection of aquifers, relating to:

- delaying operations until monitoring data are available to demonstrate the absence of problems or allowing precautionary measures to be agreed
- the nature, area and depth of working
- arrangements for recharge
- means of minimising problems from storage of oil/chemicals
- monitoring of quantity and quality of pumped flows from site

- consider the need to seek legally binding agreements regarding:

- monitoring off-site, eg of groundwater levels and abstractions
- compensatory measures, eg for abstractions likely to be adversely affected
- long term drainage and/or water quality problems

C31. The industry should:

- have regard to the Groundwater Regulations 1998
- consult the EA at an early stage

- monitor base-line before design and planning application
- define and assess the hydrogeological regime pertaining to the site and its environs
- monitor during operations:

  - ground water levels
  - neighbouring abstractions
  - quantity and quality of recharge flows
  - neighbouring land, crops, ecology for incipient problems

-plan to minimise potential problems as well as to meet EA or MPA conditions consider not dewatering or, if unavoidable, dewatering progressively in cells and reducing the inflow of water by sealing
-leave effective filter layers between aquifers
-use codes of practice for temporary spoil mounds and slope stability
provide for recharge of aquifers
- bund waterlogged archaeological sites and provide water supply
- provide impervious bases and bunding for oil/chemical stores and wet process plant
- avoid seepage of contaminated run-off through floor of quarry
- encase polluting backfill in impermeable material or dilute it with innocuous fill.

C32. For the control of surface water, MPAs should consider the need, after consultation with the EA, to agree or specify planning conditions relating to the:

- siting and landscaping of flow-balancing reservoirs
- siting of settlement lagoons and disposal of silt
- siting of overburden mounds and waste heaps
- provision of hard standing and bunding of storage/process areas
- diversion of watercourses
- provision of monitoring.

C33. The industry should:

- consult the EA and English Nature about ways of avoiding or minimising the effects of changing the watertable, polluting the watercourse or otherwise changing the hydrology of the area if this would otherwise impinge on any neighbouring SSSI and especially if the proposed site feeds a wetland area
- consult the EA about any alterations to existing surface water courses, nearby river corridors and any fixed discharges
- undertake a baseline survey and establish a monitoring system
- provide bunding to keep surface water out of workings
- design a water system, including dewatering flows, in an integrated way covering:

  - flow balancing by sumps and pumping
  - quality control by settlement in sumps and lagoons, pH balancing
  - oil and scum removal
  - use of water in processing plant and treatment of effluent including vehicle wash and wheel wash waters
  - containment of spillage from storage and processing areas
  - use of water in dust control
  - use of clean water to counteract groundwater lowering, eg in nearby pools
  - regular cleaning and maintenance of water system

- limit erosion by:

  - rapidly vegetating exposed areas
  - vegetating, physically protecting or roughening the surfaces of overburden, soil or waste mounds

- progressively restoring working areas
- lining water courses

- design sumps and lagoons to cope with all conditions, including agreed or specified storm return period, by ensuring that:

- they are big enough
- scouring is avoided
- the retention time is adequate, if necessary, enhancing settlement by use of agreed (with EA) flocculants or mechanical means

- use progressive working so that previously excavated areas serve as lagoons
- leave margins around water courses, river corridors and other sensitive areas
- minimise obstruction of flood regime by mounds of overburden or waste.

C34. MPAs and the industry should also have regard to the Department's research report "Reducing the Effects of Surface Mineral Workings on the Water Environment - A Guide to Good Practice" [Symonds Travers Morgan for DETR, 1998, ISBN 0 95 223459 9].

Transportation

C35. The potential increase in heavy traffic resulting from the transportation of coal or spoil is likely to be a major concern in the local community, depending on local circumstances. Clearly it is desirable wherever possible for the movement of coal and colliery spoil to be by means other than public roads. Consideration should be given to other means of transport such as rail, private haul roads, conveyors or canals where available. These should be investigated at an early stage for suitability. However, where economic factors compel the use of road transport, conditions attached to the planning permission might stipulate access points, vehicle washing equipment and operating hours. Consultation with the highway authority and, where appropriate, the Department of the Environment, Transport and the Regions in relation to trunk roads will be essential. The Ministry of Agriculture, Fisheries and Food should be consulted at an early stage to ensure that any private access road has the least damaging effect on the structure of agricultural units.

C36. Planning conditions and obligations cannot control the right of passage over public highways. If there is serious doubt whether local roads can accommodate such increase in heavy traffic as the proposed development is likely to generate, then, unless improvements are made or there is convincing evidence that control of traffic is feasible, planning permission may have to be refused.

C37. The MPA should therefore:

- at an early consultation stage, encourage alternatives to road traffic especially between a mine and a tip or process plant
- consider the need to agree or specify planning conditions relating to the:

- site entrance, eg which way vehicles can turn
- provision of signposting
- sheeting of lorries before leaving the site
- provision of sheeting bays
- provision of information and instructions to drivers, eg requiring the posting of a notice at the site exit requesting all drivers either to use or avoid particular routes
- provision of adequate wheel/vehicle washing facilities

- liaise with the Highway Authority to limit the size, weight, or axle loads of vehicles using particularly difficult roads.

C38. The industry should:

- seek alternatives to road haulage from excavation to tip, processing plant or depot, eg conveyors - seek alternatives to longer distance road haulage, eg rail or waterways
- avoid sensitive areas and the use of large vehicles in narrow winding roads by agreeing routes
- require that their drivers and others use agreed routes, use wheel/vehicle washing facilities and sheet their vehicles where appropriate
- offer a legally binding agreement on matters which cannot be satisfactorily covered by planning conditions, eg related road improvements.

C39. Further advice is contained in the Department's research report "Environmental Impact of Traffic Associated with Mineral Workings" [Entec UK Ltd, 1998, The Stationery Office, ISBN 0 11 753476 5].

Land Use and the Historic Environment

C40. Much of the land likely to be affected by coal extraction or spoil disposal is in agricultural use. The land will be out of agricultural production while it is being worked or tipped on; although the duration of this may be minimised where progressive reclamation is possible. The purpose of the aftercare period, where land is to be restored to agricultural use, is to assist the redevelopment of good soil structure.

C41. Where pockets of woodland or forests exist consideration should be given to retaining these not only for their intrinsic amenity and ecological qualities, but also for their screening value and their potential to act as dust filters.

C42. The effect of opencast coal extraction and subsidence from underground mining on sites, structures and remains that are of importance to the national heritage, and on the wider historic environment should be carefully considered to ensure their presrvation wherever practical. Further advice is given in paragraphs 33 to 34 of the main text above and in PPGs 15 and 16.

Nature Conservation

C43. Coal extraction and spoil disposal can affect, directly or indirectly, areas of nature conservation or other ecological value. Particular care should be given to this matter. In addition to advice from English Nature, information on areas of value or interest can be obtained from the Wildlife Trust, the Royal Society for the Protection of Birds and similar bodies. MPAs are also likely to hold some nature conservation data and they should always be contacted at an early stage in the formulation of proposals. Special legal considerations apply to European sites.

C44. In assessing the likely impact of a proposal on nature conservation interests, the MPA should consider the following matters:

- the direct loss of earth heritage features and habitats through land take;
- severance and fragmentation of habitats;
- disruption to hydrological patterns, especially on wetland sites which may be some distance from the application site itself;
- potential pollution due to run-off from extraction or disposal sites;
- other potential pollutant sources such as dust which may affect lower plants in particular;
- permanent or temporary impacts caused by construction activity.

C45. Where mitigation is appropriate, proposals should aim to avoid, minimise or reduce any impacts identified, through, for example, adjusting the application area or its total size to avoid sensitive sites, by careful design of drainage or by the use and adherence to carefully drafted codes of conduct during construction.

C46. Certain habitats such as ancient grasslands and meadows cannot be recreated. However, where the need for the development outweighs the harm to nature conservation interests, the impacts can be lessened by sympathetic restoration, alternative habitat creation, and if possible recreation of the original habitat, as an afteruse.

C47. The end objective for a nature conservation afteruse will depend on the nature and characteristics of the application area. Assessment of the nature of the surrounding area and the former habitats present on the application site (if known) will be useful pointers towards priorities for habitat creation. Important habitats which have been more or less successfully recreated include heathland and moorlands, reedswamp and wet grasslands. UK and local Biodiversity Plans can be used to identify priorities for habitat creation and site restoration.

C48. In some cases natural regeneration can be a very successful method of restoring a site for nature conservation. These will be preferable to intensive planting of such areas and, in the linger term, can result in more successful colonisation by locally prevalent species. However, such methods may require a longer timescale than that provided for in the five year aftercare period. The use of Section 106 planning obligations may be appropriate in some cases.

C49. To ensure that mitigation and restoration are successful in the long term, it will be necessary to develop continuing management programmes for sites and to monitor the success and effectiveness of any management employed. These management proposals should be submitted as part of the application and appropriately modified in the light of subsequent evaluation of their success.

Subsidence

C50. Modern underground mining methods can result in surface subsidence which may cause damage to surface structures, or effect slope stability. In any consideration of new mining proposals it is necessary to take account of all material considerations, including the benefits of extracting the coal and the impact on local communities and the environment of subsidence damage and repair. Where the impacts of undermining are likely to be high, the coal should not be extracted unless the scale of the damage can be reduced by means of preventive action to surface structures or modifications to underground lay-out or extraction is in the overriding public interest.

C51. Where new underground mining requires planning permission, consideration should therefore be given to the extent and degree of subsidence that is likely to arise and ways in which damage to surface structures or slope stability could be avoided. Where damage to surface damage is unavoidable, measures should be employed to minimise it. There are essentially three ways by which surface damage can be minimised:

a. by modifying mine design - eg by partial extraction, the retention of pillars of support, variation in the geometry of working panels and "harmonic" mining whereby the effects from different panels are applied to cancel each other out;

b. by carrying out preventive works to existing structures - eg by works to existing properties to allow relative movement between parts of the structure, or reduce the degree of ground movement being transmitted to and through it, by the insertion of telescopic and flexible joints in service pipes, sewers and trunk pipelines, and by

	excavation to relieve stress during the period of subsidence. However, preventive works to domestic property - involving cutting slots in the building and the excavation of trenches for example - whilst worthwhile in certain circumstances can in themselves be disruptive and disfiguring; and, c. by taking precautionary measures in new development - eg by designing new buildings to avoid undue stresses or strengthening foundations. C52. Mineral and local planning authorities and the industry should therefore discuss at an early stage of new mining proposals ways in which mine design and lay-out might limit surface damage and the extent to which precautionary and preventative measures might be taken. C53. Most underground mining is carried out under permitted development rights granted under the Town and Country Planning (General Permitted Development Order) 1995 at mines started before 1948, without any requirement for planning authority approval of forward mining plans. These rights are confined to designated seam areas defined by reference to seam plans deposited with the MPA before 30 September 1993 (see Annex B to MPG2 (July 1998). In planning mine layouts and working methods at such mines, operators should have regard to the size, age and function of surface structures and interests, such as hospitals, schools, areas of dense population etc, so that mining is carried out in such a way as not to cause severe damage so far as practicable. In addition, they should supply relevant local planning authorities annually with plans showing past, present and future mining intentions. It is expected that operators will give the same consideration to the need to avoid or minimise subsidence damage as they would in the design of a new mine. C54. In addition, the Coal Authority will, where necessary, include restrictions on coal mining operations in licences (and could in extreme cases refuse to grant a licence) in order to limit or avoid subsidence damage. C55. Equally, local planning authorities in coal mining areas should give careful consideration to whether permission for proposals for new surface development should be granted, deferred, or granted subject to appropriate conditions in areas where existing or planned underground mining is likely to lead to a risk of subsidence damage. **Tips and related structures** C56. The majority of surface tipping comprises the construction of spoil heaps immediately adjacent to the particular colliery or drift mine. Spoil tips can be constructed of either coarse discard or a mixture of coarse discard and dewatered treated fines. When lagoons are incorporated in tips the two types of discard are handled separately. The coarse discard is used to construct the banks and the fines "tailings" are pumped in suspension in water to the impoundment formed by the banks where the particles are allowed to settle. The supernatant water is drawn off, usually for return to the Coal Preparation Plant (CPP). When the lagoon is filled and the tailings have dried out sufficiently, the lagoon is overtipped with coarse discard as a prelude to restoration. C57. Lagooning can be more environmentally intrusive than dry tipping because for the same volume of solids the land take is much greater and it may take several years before the settlement process is completed and the lagoon can be capped with dry waste as a prelude to restoration. The excess pore water pressures which are induced within the lagoon deposit by the placing of a capping (and which temporarily reduces the stability of the deposit) take from a few months to a few years to substantially dissipate. This time depends largely on the thickness of the deposit and its drainage, but further layers of capping cannot be placed indiscriminately without consideration for the magnitude and rate of dissipation of the pore water pressures. Concomitant with this dissipation, settlement of up to about 20% of the lagoon's deposit thickness occurs. C58. The presence of lagoons can make restoration to non-agricultural end uses (or post-restoration changes of planned use) more difficult due to the engineering properties of the disposed material. At present the main alternative to lagooning is the dewatering of tailings by means of pressure filtration. This process is, however, significantly more expensive than lagooning. Nevertheless, lagoons should be avoided wherever practicable. C59. Further detailed information on tip and lagoon design including stability issues is contained within the 1991 DoE report "Handbook on the Design of Tips and Related Structures" (HMSO ISBN 0 11 752539 1), produced by the Geoffrey Walton Practice. Advice on the restoration of colliery spoil tips and lagoons is given in the Department's research report "Restoration and revegetation of colliery spoil tips and lagoons" [Richards, Moorhead and Laing Ltd, 1996, HMSO ISBN 0 11 753315 7].	
Annex D	**Annex D: The Coal Authority** D1. The Coal Authority is a Non-Departmental Public Body established under the Coal Industry Act 1994 and sponsored by the Department of Trade and Industry. It undertakes a range of activities formerly carried out by the British Coal Corporation. In particular, as the owner of practically all the unworked coal in Great Britain, the Authority manages the unworked coal reserves on behalf of the nation and encourages economically viable operations to exploit these reserves. Within its sphere of responsibility, it protects the interests of those affected by past and future coal-mining activity. D2. The Authority manages the nation's coal reserves through licensing coal-mining operations and leasing the rights to extract coal. Whilst decisions on exploration for, and extraction of, coal reserves and the market for those reserves are for the coal operators to take, the Authority has a substantial interest in promoting the sustainable management and exploitation of those reserves. It may also have a view on the extent and quality of coal reserves within particular mining prospects. Accordingly, the Authority wishes actively to work with local authorities and coal operators to ensure that the coal resource is worked, and built development carried out, in such a way as to promote sustainability and environmental protection. This will entail close liaison during the production of development plans and during consideration of individual planning applications. D3. Outside of these consultations, the Authority will supply details of areas under licence, under application for licence or under exploration licence to planning authorities through its regular newsletter, and will respond directly to any queries about licences or the licensing process. D4. In March 1999, following a commission from the Coal Authority, the British Geological Survey published a map of the coal resource of the UK, showing coal-bearing strata and identifying coal resources at depths of less than 200 metres (which might be suitable for opencast mining) and less than 1200 metres (which might be suitable	

	for deep mining, coal-bed methane extraction or in-seam coal gasification). The map is designed to assist planning authorities, prospective coal and petroleum licensees and other interested parties. D5. The Coal Authority's duties and powers are set out in the Coal Industry Act 1994 (available from The Stationery Office, ISBN 0 10 542194 4). The Authority's "Guidance Notes for Applicants for Licences or Rights in relation to Coal or Land Owned by the Authority" and its Licensing Newsletter are available from: either the Authority's website at www.coal.gov.uk or from the Licensing Department, The Coal Authority, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG (Telephone: 01623 638 309; Facsimile: 01623 620363). D6. The Authority's statutory register of licences is available for consultation at the Mines Records Office, Bretby Business Park, Ashby Road, Bretby, Burton-on-Trent, Staffordshire DE15 0QD (Telephone: 01283 553462; Facsimile: 01283 553 464). D7. The coal resource map is available from the British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottinghamshire NG12 5GG (Telephone: 0115 936 3241; Facsimile: 0115 936 3488) or the British Geological Survey, Murchison House, West Mains Road, Edinburgh EH9 3LA (Telephone: 0131 667 1000; Facsimile: 0131 668 2683).	
Annex E	**Compulsory rights of access to land and orders extinguishing or temporarily suspending public rights of way** E1. Under the Opencast Coal Act 1958, British Coal could acquire certain rights for compulsory access to land to prospect for opencast coal ("prospecting directions"), or work opencast coal ("compulsory rights orders"); suspend non-vehicular rights of way over opencast sites ("rights of way orders"); and compulsorily purchase rights to provide drainage works or water supplies to opencast sites ("drainage orders"). The rights conferred by these orders could only be exercised if British Coal had made the appropriate application or order, planning permission for opencasting has been granted, and the order had been separately authorised or confirmed by the Secretary of State. E2. The Coal Industry Act 1994 modified the provisions of the Opencast Coal Act 1958 and enables operators with a licence from the Coal Authority (or a person whose application for a licence to the Coal Authority is pending) to apply to the Coal Authority for the making of compulsory rights orders, rights of way orders and drainage orders and enables the Coal authority to apply to the Secretary of State for a prospecting direction. Where the Coal Authority makes an order, the order will be of no effect unless and until confirmed by the Secretary of State. **Prospecting Directions** E3. A prospecting direction grants compulsory rights of access to land for the purposes of prospecting for opencast coal, to establish whether the land contains coal suitable for working by opencast methods and if so, what quantity and quality of coal, how it can best be worked, and to establish whether land would be suitable for operations connected with opencasting - eg siteworks, access and restoration of the land. A prospecting direction does not authorise any interference with the exercise of a public right of way, nor entry into buildings. E4. There is no provision for a local inquiry into whether or not a prospecting direction should be made, but the Secretary of State will only make such a direction after giving persons affected the opportunity to make representations to him, and if he is satisfied that the rights of access are necessary in the public interest. E5. Where the Secretary of State makes a prospecting direction, he will usually attach conditions governing the scope and duration of the operations to be carried out and the subsequent restoration of the land. Prospecting does not entail any major disturbance of the land and the 1958 Act provides for compensation to be paid to persons having an interest in the land in respect of any damage or disturbance so caused. The making of a prospecting direction does not convey any presumption that a subsequent application for planning permission for opencast coal mining would be granted. **Compulsory Rights Orders** E6. Compulsory rights orders confer temporary rights of occupation and use of land for opencast coal mining. Orders may not comprise any part of a dwelling or immediate surrounding land and are subject to confirmation by the relevant Secretary of State. Where the Coal Authority make an order, an inquiry or hearing must be held if a valid objection is made by an owner, lessee or occupier of land which is the subject of an order. If the Secretary of State confirms an order, the 1958 Act provides for compensation to be paid to persons having an interest in the land. E7. In deciding whether or not to confirm a compulsory rights order, the Secretary of State will need to be satisfied in any particular case that there is a wider public interest in allowing the coal to be worked which is sufficient to override the normal rights of a landowner to withhold consent for development on his land. **Rights of Way Orders** E8. Rights of way orders suspend a non-vehicular rights of way (ie a public footpath or bridleway) over land until opencasting has been completed and the land restored. Where the Coal Authority make an order, the order must include provision for securing the reconstruction of any suspended right of way on the restoration of the land. An inquiry must be held if an objection is made by a county or district council in relation to an order made by the Coal Authority in respect of land in their area. E9. In considering whether to confirm a rights of way order, the Secretary of State will need to be satisfied that suspension of the public right of way is necessary; and, that a suitable alternative way will be made available for use by the public during the period for which the order remains in force; or, that the provision of such an alternative way is not required - eg because there are already adequate existing alternative rights of way. **Drainage Orders** E10. Drainage orders confer a right to place drainage works or water pipes on land, without purchasing any other interest in that land, for the purpose of draining land or bringing a supply of water to land in respect of which opencast planning permission has been granted. Where the Coal Authority make an order, an inquiry or hearing must be held if a valid objection is made by an owner, lessee or occupier of land which is the subject of an order. If the Secretary of State confirms an order, the 1958 Act	

	provides for compensation to be paid to persons having an interest in the land. E11. The Secretary of State will only confirm a drainage order if he is satisfied that the rights are necessary and in the public interest. **Public Inquiries** E12. Compulsory rights orders, rights of way orders and drainage orders may not be confirmed until planning permission is granted. If an inquiry has to be held to consider any such orders for the same site, they will be considered concurrently, together with any appeal against refusal of opencast planning permission, where this is applicable. **Expiry of Powers** E13. The power to make prospecting directions, compulsory rights orders, rights of way orders, drainage orders will lapse on 31 December 1999. **Procedures** E14. Further advice on the necessary procedures is contained in The Opencast Coal (Compulsory Rights, Drainage and Rights of Way) (Forms) Regulations 1994 Guidance Note.	

MPG5: STABILITY IN SURFACE MINERAL WORKINGS AND TIPS - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
	This guidance advises that: - mineral planning authorities need to consider stability in relation to surface mineral workings and tips; - local planning authorities need to consider stability in relation to development in, on or near abandoned surface mineral workings and tips; and that - policies should outline the consideration which will be given to stability issues in considering mineral development and other development in, on or near to mineral workings and tips; - consideration of apparently unrelated issues may require consideration of the potential effects on the stability of excavated or tipped slopes; - where appropriate, planning applications and restoration/landscaping schemes should be accompanied by a design report prepared by a competent person which demonstrates that the perimeter slopes and any internal slopes remaining after restoration will remain stable.	Specific policy.
16	Development plans When preparing minerals local plans, MPAs will need to consider the extent to which specific policies should be included to cover tip- and quarry-slope stability or whether this issue should be covered by supplementary guidance. This consideration should take account of the factors which might trigger particular concerns about stability, such as proximity to built development or infrastructure; knowledge of previous instability problems; the criteria to be used to define stand-off distances or clearances between quarry slopes or tips and the site boundary or third-party structures; and the requirement for final slopes and restoration to be compatible with stable slopes…	Specific policy.
17	In addition, policies in district-wide local plans should seek to ensure that land use is appropriate when considering development above or below abandoned quarry slopes and on or near to disused tips or back-filled workings. In particular, attention should be given to the possible need for stand-offs to protect neighbouring land or structures and/or for slope stabilisation measures. Where development is being proposed on back-filled workings, consideration will be needed of both the planning and Building Regulations requirements in respect of stability, as well as of the possibility of contamination arising imported waste… … Any development planning briefs prepared for such sites should ensure that the issues of slope stability, differential settlement of quarry backfill and the likelihood of contamination and migration of contamination from the site are properly addressed.	Specific policy.
20	Development control Landscaping and restoration proposals should be consistent with the production and maintenance of safe and stable slopes…	Specific policy.
22	While the internal working slopes of quarries and tips are principally matters of concern to the operator and the HSE rather than for the MPA, the final perimeter slopes and restoration proposals have land-use implications, which need to be considered by the MPA. In order to do so it will need to be provided by the operator with an assessment and design of perimeter slopes and any internal slopes remaining after restoration to enable any potential for adverse effects due to instability to be minimised…	Specific policy.
24	… Applications for new workings should be accompanied by an appraisal of slope stability issues based on existing information, which aims to: • identify any potential hazard to people and property and assess its significance; • establish the basis for reserve calculation; • identify any features which could adversely affect the stability of the working to enable basic quarry design to be undertaken.	Specific policy.
25	… Where built development is the proposed after-use for back-filled workings, MPAs should impose conditions to secure appropriate deposition and compaction to allow that development to proceed without the need for further ground treatment.	Specific policy.
26	Appraisals and assessments of excavated and tip slope stability should be carried out for the operator by a competent person, as defined in the Quarries Regulations 1999. The MPA is entitled to rely on such appraisals and assessments in considering the impact of stability on land use. The MPA should ensure that any changes to the applicants proposed method of working, which may be desirable for other reasons, are appraised and assessed by that competent person…	Specific policy.
27	*Applications for development on or near abandoned tips and quarries* Where development is proposed in or near the slopes of abandoned quarries or tips, local planning authorities should seek information from applicants in respect of stability reports prepared by a competent person. The layout of such development will need to be considered in relation to the stability of nearby slopes and the necessity for and feasibility of any necessary stabilisation measures. Development on back-filled workings and tips will also need to consider the potential effects of differential consolidation of the fill/tip material as well as any potential effects on slope stability. The detailed resolution in terms of specific foundation measures or ground treatment is, however, a matter for the building regulations…	Specific policy.
28	Conclusions The Secretary of State looks to all local planning authorities and to mineral operators and other developers to implement the advice in this guidance note. This will help to ensure that proper consideration is given to the risk to public safety and the environment due to ground movements during and after surface minerals extraction.	

MPG5: STABILITY IN SURFACE MINERAL WORKINGS AND TIPS - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
	PPG 14 sets out the broad planning and technical issues in respect of development on unstable land and PPG 14 Annex 1 developed these with particular reference to the problems caused by landslides and unstable slopes. This MPG aims to apply that guidance with particular reference to stability in quarries, surface mines and associated tips and related structures and should be read in conjunction with it. The problems are reviewed and the responsibilities of the different parties are briefly examined. Appendices outline good practice in the design, assessment and inspection of: - excavated slopes; and - tips and related structures	
1	Introduction The Environment White Paper ("This Common Inheritance" Cm 1200, September 1990) identified the maintenance of a physically safe environment as one of the priorities the planning system should take into account to ensure that proper precautions are taken against the risks posed by physical hazards. PPG 14 clearly established instability as a material planning consideration in so far as it affects land use and development; PPG 14 Annex 1 advised on the particular considerations which may be needed with respect to landslides.	
2	Instability at active mineral workings disrupts mineral extraction, it may affect land beyond the quarry boundary and it may threaten the safety of people in and around the quarry. It may also be a cause of delays and additional costs in quarry reclamation schemes. Once active quarrying has ceased, there may remain a risk to third parties as well as to any development within or near a quarry or on or adjacent to a tip or lagoon. Instability problems may interfere with the effective restoration of sites to beneficial after-use appropriate to and compatible with the surroundings. The beneficial and sustainable extraction of minerals, therefore, requires particular attention to stability matters.	
3	Purpose and coverage of this guidance The purpose of this guidance is to advise local authorities, landowners, mineral operators and other developers on the exercise of planning control with respect to stability in surface mineral workings and tips and on good practice in the design, assessment and inspection of excavated slopes and tips. It is complementary to and should be read in conjunction with PPG 14 (Development on unstable land) and PPG 14 Annex 1 (Landslides and planning) and to the Quarries Regulations 1999 and associated Approved Code of Practice. It is intended to ensure that: • the operation and restoration of surface mineral workings is not detrimentally affected by instability; • instability does not impact on neighbouring land; • on cessation of active working, surface mineral workings are left in a safe and stable condition; • development in, on or near disused and abandoned workings takes due account of potential instability.	
4	This guidance covers the stability of surface mineral workings subject to current planning applications, to review of conditions and to continuing conditions requiring agreement of schemes of restoration and after-care. It covers excavation faces and tips as defined in the Quarries Regulations 1999, including spoil heaps, tailings dams and lagoons, soil or overburden storage mounds used as amenity banks or stored in readiness for landscaping and restoration works, mineral stockpiles and quarry backfill. Instability due to underground mining (subsidence) is not covered but the principles apply equally to surface tips and related structures arising from such mining. They are also of wider relevance to other development involving excavated slopes and tipping and to the stability assessment of natural cliff faces with the potential to affect land use and development.	
5	Instability in surface mineral workings and tips Surface mineral workings involve the excavation of faces and tipping of material to create slopes, which are stable enough in the short term to allow working/back-filling to take place within the time required to enable the mineral to be excavated by machinery and transported for processing and use. As such, they are not unstable. However, longer-term instability and uncontrolled instability in the short term may cause problems to the operation, restoration and after-use of mineral workings and it may affect land outside the quarry boundary.	
6	The potential for stability issues to be of increasing importance arises from a number of developments in the minerals industry. Economies of scale and the growing importance of environmental constraints have led to a concentration of mineral working on existing sites. Workings may, as a result, extend closer to existing site boundaries and there is a trend towards deeper quarries to maximise the recovery of the reserve. The need to maximise production in quarries and to minimise the overall stripping ratio in surface mines requires operators to work to the steepest feasible overall slopes. The extension of workings both laterally and in depth results in greater quantities of mineral waste or overburden. Mineral processing may produce a discard which is inherently less stable, eg because it is finer-grained or contains more water. Site constraints may then result in land availability for disposal being reduced, leading to greater potential for instability. Back-filling of workings with material excavated or with mineral processing or imported waste (including landfill) may result in differential settlement or impedance of groundwater flows as well as possibly causing contamination. All these factors lead to the possibility of instability, which may affect neighbouring land and development. Pressure to develop near to or in quarries increases the extent of development at risk by encroachment onto areas that may be affected by instability and may in itself lead to instability of what would otherwise be	

	stable slopes.	
7	The causes and types of instability are varied but there are basically three situations, which are described in Appendix A: • excavated slopes • tips and related structures • quarry back-fill	
8	*Excavated slopes* Between 1969 and 1989, approximately 2,200 reported accidents resulted in personal injury in British quarries, of which about 110 were the result of "falls of ground". Two thirds of these were from quarry faces, predominantly from rock quarries but also including a number from sand and gravel workings. Whilst some of these involved collapse of the excavated face with up to over 10,000 tonnes of material involved, two thirds of those in rock quarries resulted from isolated rockfalls weighing in some instances only a few kilograms and most falling from a height of 20m or less. Movement or fracture of excavated slopes in quarries with the potential to kill someone or adversely affect neighbouring property are classified as dangerous occurrences but I practice they are often not reported; it is reasonable, however, to assume a similar distribution by type of slope failure and rockfall. Over this 20-year period, several public roads and footpaths have been closed following collapses extending outside quarry limits; major services have required diversions; and on two occasions emergency measures were necessary to support railway tracks due to ground movements generated by quarrying; the breaching of the banks of the River Aire by an opencast coal working in 1989 also had a significant impact. A number of factories in abandoned quarries have experienced problems with rockfall; in places, housing in or close to quarries has been threatened as a result of ground movements caused by retreating slopes.	
9	*Tips and related structures* Of the 110 "falls of ground" accidents, one third resulted from falls from mineral stockpiles, usually during reclaim of mineral for processing or sale, but none have been attributed to the collapse of a spoil heap or lagoon. Tip instability is, therefore, not a major source of accidents in British quarries; since the Aberfan disaster in 1966, the coal mining industry has had a similarly good record with only two accidents, both of which followed excavation of the toe of a previously stable closed tip. Nevertheless, there have been, on average, about 4 reportable dangerous occurrences per year involving insecure quarry tips and about 5 per year involving coal mine tips. Several of these could have resulted in personal injury, since they tend to involve large volumes of material (50 of 74 occurrences in quarries involved over 1,000 cubic metres and 2 over 100,000 cubic metres). 1 in 3 resulted in damage to property and 1 in 5 to disturbance to land or property beyond the curtilage of the mine or quarry. Collapsing tips have blocked roads, railways and rivers, they have damaged neighbouring buildings and vehicles and they have disrupted electricity and water supplies. Failures have also damaged mobile and fixed quarry plant, blocked and severely disrupted haul roads; in some cases, they have required the complete redesign of tipping operations. Failure of lagoons (18 of the 74 occurrences) was twice as likely to result in damage to property as that of spoil heaps, probably because lagoon contents tend to flow faster and for much greater distances, allowing less time for preventive or remedial measures. Concern has also been expressed about the potential failure of tips not associated with mining or quarrying, such as the sewage sludge lagoon, which breached and partially blocked the River Colne in West Yorkshire in 1992.	
10	*Back-fill in surface mineral workings* Settlement of back-fill in surface mineral workings continues indefinitely, albeit at a decreasing rate depending on the material deposited, the method of placement, total thickness, applied load and, most importantly, drainage conditions. Differential settlement on back-filled ground may result in the disruption of drainage measures, possibly with consequential effects on the type and rate of settlement and on the stability of associated slopes. The subsequent use of back-filled quarries for built development is, therefore, a complex issue. Layered compaction of back-filled areas will reduce later settlement but will not eliminate it entirely. Particular problems may arise with variations in water level and with variations in the thickness of back-fill, or at the transition from back-fill to virgin ground.	
11	Responsibilities for stability of surface mineral workings and tips The primary responsibility for the safety and stability of a surface mineral working is that of the operator, defined in the Quarries Regulations 1999 as "the person in overall control of the working of the quarry". Under these Regulations a quarry may be taken as including any excavation or system of excavations made for the purpose of, or in connection with, the getting of minerals not being a mine, borehole or well. It thus includes all surface mineral workings whether these are described as quarries or surface mines. Tips for the time being used in connection or conjunction with the operation of a quarry are deemed to form part of the quarry. A tip is defined in the Regulations as an accumulation or deposit if any substance at a quarry, including but not limited to overburden dumps, back-fill, spoil heaps, stockpiles and lagoons. Surface mineral workings are subject to the provisions of the Health and Safety at Work etc Act 1974 and the Quarries Regulations 1999. Enforcement is through the quarry inspectors of the Field Operations Division of the Health and Safety Executive (HSE). On the cessation of working and following restoration, responsibility reverts to the landowner and any subsequent developer/employer who operates part or all of the quarry as a place of work. Tips associated with underground mineral workings are subject to the provisions of the Mines and Quarries (Tips) Act 1969 and the Mines and Quarries (Tips) Regulations 1971. A tip is defined under this legislation as an accumulation or deposit of refuse from a mine; temporary storage mounds for topsoil, subsoil and mineral stockpiles are thus excluded from this definition. Enforcement of the tips legislation is through HM Inspectorate of Mines of the HSE. Part II of the Mines and Quarries (Tips) Act 1969 is concerned with the prevention of public danger from disused quarry and mine tips not associated with an active mineral working. Enforcement in respect of these Part II tips is by local authorities, rather than the HSE.	
12	Under the Quarries Regulations 1999, the operator has a general duty to ensure the safety of excavations and tips. They are required to be designed, constructed, operated and maintained so as to ensure that instability or movement, which is likely to give risk to the health and safety of any person, is avoided. Requirements for inspection of	

	working places and faces and for action in the event of perceived danger are specified in the Regulations. Reporting of accidents and dangerous occurrences is explained in the Approved Code of Practice Health and safety at quarries. All proposed and existing excavations or tips need to be appraised at appropriate intervals to determine whether they constitute a significant hazard. Where a significant hazard exists, the Regulations require that a geotechnical assessment be carried out, at least every two years, to identify and assess all the factors liable to affect the stability and safety of a proposed or existing excavation or tip. The Regulations also require that the operator shall ensure that in the event of abandonment of or ceasing of operations at a quarry, it is left in a safe condition. For tips associated with underground mines, similar duties are imposed on mine owners under the Mines and Quarries (Tips) Act 1969. The Mines and Quarries (Tips) Regulations 1971 specify the requirements for design of tips, supervision of tipping operations, inspection of tips and the reporting of defects and dangerous occurrences.	
13	Surface mineral working and tipping operations constitute development and therefore require permission under the Town and Country Planning Acts. As indicated in PPG 14, stability is a material planning consideration in so far as it affects land use but the planning system should not seek to duplicate controls that are the statutory responsibility of other bodies. The risks to health and safety of people are thus properly considered under health and safety legislation. However, where any instability may threaten land outside of the boundaries of the mineral working or tip, it may not necessarily threaten the health and safety of people though it could affect neighbouring land use. The MPA then has a duty to consider the potential effects on land use in the public interest and where necessary to consult adjoining landowners and other third-party interests.	
14	The principal reasons for ensuring the stability of excavated slopes and of tips and related structures and the relevant responsibilities and interests of different parties can be summarised as being: • To minimise the risk of accidents to the workforce and others who may be affected by uncontrolled falls of ground or other ground movements; this is the responsibility of the operator and of major concern to HSE; • to minimise financial losses caused by slope failures and related ground movements; this is a principal concern of the operator; • to minimise the loss through ground movements of screens or baffles with consequent adverse environmental effects, which such features were erected to counter; this is of concern to the mineral planning authority as well as the industry; • to ensure the safety of any existing or concurrently permitted use of land above or below an excavated slope or tip during and after the conclusion of active quarrying or tipping; this is of interest and concern to all parties but especially to neighbouring land owners and owners of third-party services adjacent to the quarry; • to permit the optimum recovery of a mineral within the context of the geological, geotechnical, environmental, planning and economic constraints that apply; this is the prime objective of the operator and is also of concern to the mineral planning authority.	
15	Planning control Development plans PPG 14 (paragraphs 25-30) outlines the approach that local planning authorities should follow in dealing with land instability issues in general. PPG 14 Annex 1 (paragraphs 21-26; appendix 1A) outlines the specific requirements in respect of landsliding including the assessment of landslide hazard and the possible need for a stability report. MPG 12 (paragraphs 61-73 and Appendices D and E) outlines the requirements for consideration of mine openings in development plans and emphasises the importance of advice and information on mined ground.	
16	… It would be useful to indicate the consultations that will be undertaken in respect of third-party structures and the information required as a basis for consultation and decision	
17	…Further advice on developing contaminated land is given in PPG 23 Planning and pollution control. It may be appropriate in some cases to identify former quarried areas in the local plan or in supplementary planning guidance as possible physical constraints, which may not prevent development but which need to be addressed when considering development…	
18	Development control *Applications for mineral workings and review of old mineral permissions* General guidance for the handling of individual applications on actual or potentially unstable land is contained in PPG 14 (paragraphs 31-45) and specifically in respect to landslides in PPG 14 Annex 1 (paragraphs 27-31; appendix 1B) and to mine entries and underground mine openings in MPG 12 (paragraphs 34-60). The importance of early discussions between the applicant and the MPA and of appropriate consultation cannot be over-emphasised. It is particularly important to ensure that the stability of quarry and tip slopes is considered in relation to a number of issues, which may not appear to be directly related (paragraphs 19, 20 below). It is particularly important that there should be good consultation with the HSE to ensure that there is no conflict between planning conditions and the statutory requirements of the Quarry Regulations.	
19	In order to reduce the potential for a mineral operation to have adverse environmental effects, it is sometimes necessary to specify the direction of working, eg to reduce the period and extent of visual impact or to reduce the effects of noise and/or dust on nearby communities. In doing so consideration should be given to the possible adverse effects on the stability of excavated slopes of working in a manner which might not be the optimum from the geotechnical standpoint.	
20	…The stability of amenity bunds has been a problem in some quarries and they need to be carefully designed and constructed. Particular care is needed when attempting to simulate or replicate natural slope features in the locality, which have resulted from and continue to be affected by natural processes of instability. At many sites, the progressive nature of extraction and restoration provides an inherent link between the working and restoration faces. It may, therefore, be necessary for the MPA to specify the slopes of those faces and benches to ensure that acceptable restoration slopes can be achieved with the materials available and that they are suitable for appropriate planting with the necessary access for maintenance. In other cases, however, most internal slopes and benches will not directly link to the restoration proposals and it	

	would be inappropriate for the MPA to specify those slopes in planning conditions.	
21	To make reasonable assessments of mineral reserves and resources, assumptions have to be made regarding stable ultimate slope angles. The deeper a deposit and the thicker the overburden, the more critical this assumption becomes. Similarly, the calculation of stand-off distances for the approach of quarrying to neighbouring land or structures or for the approach of development to active and abandoned quarries and tips requires an assessment of the stability of both excavated and tipped slopes. Whilst there are some statutory or empirical stand-off distances used, eg under the Pipelines Act 1962 or by BG Transco in relation to their legal easements, the width of a safety corridor around a service or structure will depend on the depths of working, the nature and style of tipping and the prevailing ground conditions. Since each site has unique ground conditions, it is not feasible to prescribe a comprehensive system of stand-offs or clearances; the closeness of approach to neighbouring land or structures and the need for consultation with third-party interests should be determined, therefore, on a site-specific basis. In practice, such stand-offs are often determined for other environmental reasons (eg to minimise the effects of noise, dust or visual impact) in the case of new quarries or the approach of development to active workings. The requirements for stable slopes are generally encompassed within the stand-offs specified for those reasons.	
22	… The options available for excavated slopes are: • to design the final slopes before submitting a planning application; • to complete design after the granting of planning permission as part of the preparation of a restoration/landscaping scheme for the ultimate slopes which is to be agreed before excavation commences; or • to complete design after excavation has commenced but before the final working faces have been formed at the site perimeter.	
23	If the design is completed before a planning application is submitted, the ultimate limits of excavation or tipping/back-fill and final long-term slope details are established with certainty at the outset. This allows full consideration of the potential impacts by all consultees as well as by the MPA. However, it does have earlier cost implications for operators in terms of investigation and design expenditure being incurred before permission is assured. Submission of a landscaping/restoration scheme after permission is granted but before excavation starts would avoid any possibility of abortive expenditure but would give less certainty at the time of application. In addition, an initial investigation can only give so much information and the details of geological structures at any site will become clearer as excavation progresses. Under the Quarries Regulations 1999, operators are required to review their appraisals/assessments during the life of a working and modify slope design in the light of new information. Slope design would thus benefit from observations on the stability of actual slopes. However, there are drawbacks for the operator in that initial layout and development of internal slopes may not benefit from previous design work and for consultees in that they will not have a proper basis for assessing the potential effects of the excavation on their interests.	
24	The consideration of slope stability that is needed at the time of application will vary between mineral workings depending on a number of factors, eg depth of working; the nature of materials excavated; the life of the working; and the nature of restoration proposals and, thus the length of time slopes are expected to be in place. Early consideration of quarry and tip slope stability in pre-application discussions will enable the requirements and their timing to be determined in the light of individual circumstances. Consideration could be on a two-stage basis, similar to that detailed in the Quarries Regulations 1999…	
25	For some mineral workings, such as relatively short-term operations, which are progressively restored by back-filling, this may be sufficient, since excavated and tipped slopes, which will be exposed for a short period only, can be designed to an acceptably low level of risk. Deeper longer-term workings, in which significant slopes will remain at the end of working may need a more detailed assessment of stability issues as part of the landscaping and restoration plan; this will generally follow the grant of planning permission and take advantage of knowledge gained during operations. In carrying out a review of old mineral permissions, a similar approach is recommended. In this case, however, there will generally be greater certainty as to the geological conditions arising from existing information than with a new working…	
26	… Guidelines to good practice in the design, assessment and inspection of excavated slopes and tips are given in Appendices B and C. These are not intended to be prescriptive but they give an indication of the essential features and factors involved in the consideration of slope stability in surface mineral workings and tips. As such they will provide a basis for discussion with the applicant and for any necessary consultations, eg with neighbouring landowners and the HSE.	
27	*Applications for development on or near abandoned tips and quarries* … Further guidance is given in PPG 14 Development on unstable land and in PPG 14 Annex 1 Landslides and planning; advice on the consideration of potential contamination of such sites is given in PPG 23 Planning and pollution control.	
Appendix A	**Appendix A: Instability in Surface Mineral Workings and Tips** A1. Surface mineral workings are developed in a variety of geological and geotechnical settings. These range from shallow workings in unconsolidated superficial deposits (sand, sand and gravel) to deep workings in both hard rocks (igneous and metamorphic rocks, sandstones, limestones) and in weaker layered minerals (coal, clays and shales); deeper workings are often overlain by shallow superficial deposits. There has been a tendency over the years towards deeper working arising from technological change, rationalisation of the industry and increasing environmental constraints. While slope failures in quarries are responsible for only a small number of notifiable accidents, deeper workings increase the potential for large rock slope movements. A2. The causes and types of instability in surface mineral workings and tips are varied but there are essentially three situations, excavated slopes, tips and back-fill in surface mineral workings. The factors influencing instability and the types of failure that occur are described below. Guidelines on good practice in the design assessment and inspection of excavated quarry faces and tips are contained in Appendices B and C. *Excavated slopes* A3. Figure A1 schematically presents a number of situations, which illustrate the factors which may influence the stability of quarry faces or which may indicate potential	

instability. Many of these situations will not arise in the modern well managed quarry operation and, indeed, some of them would be contrary to the requirements of present health and safety legislation. Such situations could have arisen in the past, however, and there may be abandoned quarries where they still exist. Appendix B outlines the need for inspections of both active and disused quarry faces to identify any occurrence of these situations and for the design and assessment of quarry faces to take account of these factors.

A4. The main factors affecting the stability of quarry slopes can be summarised as:

- the location and properties of structural discontinuities (eg bedding planes, joints, faults etc), their orientation with respect to the slope and to other discontinuities within the slope, resistance to movement along them, their persistence and spacing and the ease with which water can penetrate, accumulate or flow along them;
- the properties of intact rock and soil materials, including the physical properties of different minerals and their bonding one to another, variations in properties in different directions, moisture content, weathering characteristics and intact material strength;
- groundwater conditions, particularly the build-up of water pressures, which reduces the force resisting sliding between blocks in the rock mass and enhances the disturbing forces separating blocks; and
- operational or external factors, such as slope geometry, loading of slopes, vibrations and other engineering activities (eg old underground workings, drainage works, boreholes, back-filled areas).

A5. The main types of slope failure affecting excavated quarry slopes are:

- translational failures, with sliding at the forward edge on a single surface, or wedge failures, with sliding along two or more intersecting discontinuities; translational failures may occur on any rock slope with adversely oriented planar discontinuities which dip into the excavation, critical factors being unfavourable face orientation, undercutting of critical discontinuities, high water pressures and daylighting of (ie intersection of the quarry face by) critical discontinuities;
- rotational and curvilinear failures, where rock-mass behaviour is not dominated by major structural features but by the intact shear strength of the rock mass due to the relationship between block size and slope dimensions, in heavily fractured or disturbed ground or in low strength materials; they may occur in high faces in weak rocks or in thick superficial cover deposits (overburden), critical factors being loading of the crest of the slope, the excavation process itself and high water pressures;
- toppling failures involving non-sliding elements rotating about some fixed axes, where the centre of gravity of blocks lie in front of the face, the base is too shallow for sliding to occur and steeply inclined discontinuities are sufficiently open to allow movement; they may occur in steeply excavated rock faces with highly inclined discontinuities which act as release planes, critical factors being over-steep faces, over-blasting, high water pressures in rear discontinuities and closely spaced discontinuities dipping steeply into the face;
- rockfall, involving often isolated blocks detached from the face by sliding or toppling, by undercutting of larger blocks, loosened by blasting or forced out after freeze-thaw weathering or by high water pressures following heavy rainfall; rockfall commonly precedes a large-scale collapse and it may also follow slope failure; long-continued rockfall, especially in soft rocks, can give rise to substantial regression of the slope crest without any large-scale collapse; it may occur in most steeply excavated rock slopes with individual blocks or small volumes of material based on unfavourably inclined surfaces, critical factors being over-steep faces leading to undercutting of individual blocks, degradation of ground due to weathering, high water pressures, freeze-thaw weathering cycle and poorly designed blasting;
- void collapse affecting the ground surface alone or triggering other forms of slope failure; it may occur in rock slopes constructed in previously mined ground or in ground with natural voids, critical factors being increased permeability promoting weathering and decreasing rock strength and initial deformation leading to other modes of failure

Tips

A6. Figure A2 schematically presents a number of situations illustrating the factors influencing tip instability and which may indicate potential instability. As with the face illustration in Figure A1, most of these do not arise in well managed quarry operation but inspections, tip design and assessment should take account of these factors as described in the good practice guidance in Appendix C.

A7. The main factors influencing the stability of tip slopes are:

- properties of material within and beneath tips, including particle size and voids, moisture content, permeability, shear strength and pore water pressure;
- method of construction and structure of tips, eg whether end-dumped, layer-placed or heaped tips, or single- or multi-stage construction lagoons;
- surface and groundwater conditions, since water in a tip can modify the strength of materials, increase weight and provide additional disturbing forces, reduce effective shear strength by generating hydraulic uplift and cause surface erosion;
- foundation and site conditions, such as the relationships with existing ground slopes and those at the junction between bedrock and superficial deposits (rockhead), presence of weak materials, spring lines and subjacent features such as services, mine workings or natural cavities;
- operational or external factors such as the effects of vibrations from plant operations or blasting, damage to drainage measures and, particularly, the removal of material from the toe of a tip through erosion by livestock or burrowing animals or, more commonly, by direct excavation for operational reasons.

A8. The main types of slope failure affecting tip slopes are:

- rotational and curvilinear failures which may involve the tip and its foundations, critical factors being over-steep faces in weak materials, weak planar surface at tip/foundation interface, weak foundation materials and high pore pressures due to water infiltration into tip, or rapid rise in lagoon level;
- translational surface sliding in granular materials tipped at or above their angle of repose, critical factors being loss of cohesion as the surface dries, reduction of strength due to water or weathering and removal of toe by erosion or for operational reasons;
- biplanar failures involving the formation of an upper active wedge which displaces a lower passive wedge ahead of it, critical factors being weak material at formation level, insufficient loading at toe of slope and high water levels within spoil;

Figure A1. Schematic drawing showing factors influencing the stability of quarry faces and indicating potential instability.

Figure A2. Schematic drawing showing the factors influencing tip stability and indicating potential instability.

Figures A1 and A2

- liquefaction and flow slides involving fine-grained, saturated, granular material which rapidly loses much of its shear strength due to sudden disturbance such as rotational failure, subsidence or vibrations; this is a particularly common failure mode within lagoon materials following the breaching of a retaining bank; flow slides can rapidly travel significant distances (10-20 times the height of the tip) and may cause substantial damage, critical factors being poor compaction and/or saturation of tips and lagoons including substantial volumes of sand- or silt-sized material;
- piping failures, cavitation collapse and mud runs where water washes out fine material as it seeps through a structure, where voids have been left or have been created in a tip (eg by piping, collapsed culverts, burrowing animals or as a result of tip fires) or where water flows down or out of a tip carrying loose material and eroding gullies; critical factors are the rate of flow of water through a tip structure, poor compaction or accessibility to burrowing animals and poor drainage, exposure of weak materials within the tip surface and over-dumping on peat; and
- settlement and heave involving variations in level of the tip or the toe of a slope are not important modes of failure in themselves but, since differential movements are common, they can have important consequences for surface and subsurface drainage and hence on other types of failure; they may also be an indication of some other form of failure.

Back-fill in surface mineral workings

A9. While it is being placed, or if a final void is left unfilled, overburden or waste material which is being used to backfill quarries and surface mines can be subject to the same types of failure as tips and related structures. Critical factors include:

- adverse gradients on the quarry floor, ie the quarry floor being inclined away from the toe of the backfill;
- high water levels in the backfill; and
- the presence of weak materials on the quarry floor.

A.10. Once it is in place, however, the principal problems are likely to arise through differential settlement of the backfill material, due to:

- variability in fill;
- variation in depth of fill;
- non-uniform load distribution; or
- non-uniform inundation.

Differential settlement does not occur just across the edge of the excavation but it can also result from filling of a sloping quarry floor or over a buried highwall.

A11. The settlement of fill materials results from the mechanisms of compaction and consolidation. Primary settlement occurs as a result of imposed loads. Creep settlement is thought to be due to a gradual reduction in void space in fill materials under self-weight or imposed loading. Both types of settlement are time-dependent, reducing with time. Collapse settlement is due to reduction in the strength of fill materials when they become saturated. It can occur suddenly at any time depending on the occurrence of contributing factors. It commonly occurs where water levels rise within the backfill but it may also result from subsidence or surcharge loading. It may be particularly severe when the backfill has been placed with no compaction. The filling of quarries with imported waste material by landfill may require particular consideration of the potential effects of differential settlement as the material deposited degrades, as well as the potential for leachate and/or landfill gas generation.

A12.The guidelines in Appendix C are intended to refer to back-fill in surface minerals workings, which are defined as tips under the Quarries Regulations 1999.

Appendix B	**Appendix B: Guidelines on the design, assessment and inspection of excavated quarry slopes** The proper design of excavated quarry slopes is the responsibility of the quarry operator and must comply with statutory requirements under the Health and Safety at Work etc Act 1974 and the Quarries Regulations 1999. While the internal working faces will generally not have significant land-use implications and are essentially matters for the operator and HSE, the stability of final perimeter slopes can have land-use implications, particularly where important facilities and services are located near to the final slopes of the excavation. Such facilities and services include third-party buildings and neighbouring land, railways, roads and footpaths, pipelines, power lines, canals, rivers and reservoirs, areas of established amenity, archaeological or scientific interest and areas of public access. In such cases it may be necessary for the minerals planning authority to request from the applicant an appraisal or more detailed assessment, which details the consideration that has been given to the stability of excavated slopes. Where instability occurs or is expected, an assessment will be needed of the actual risks and of potential remedial or preventive measures. Regular inspection of working places is required by statute. A prudent developer should also carry out inspections and assessments of abandoned quarry slopes when development is proposed above or below them. B2. These guidelines were prepared as part of Department of the Environment research on the stability and hydrogeology of excavated slopes in quarries (Geoffrey Walton Practice, 1988). They are intended to apply to quarries and opencast workings in bedrock minerals and are also relevant to excavated slopes at mineral workings in superficial or re-deposited materials. They outline design procedures identifying the steps that should be followed when designing, assessing and inspecting quarry slopes. As such, they are not intended to be prescriptive but they do illustrate good practice in considering excavated slopes. They are not alternative measures to those required by statute, as set out in the Quarries Regulations 1999 and the Approved Code of Practice (Health and safety at quarries.) but they give further detail on what constitutes good practice. They should be regarded as illustrating the standards to be employed by prudent quarry management to fulfil their statutory duties and to provide the information required by a minerals planning authority to enable it to determine a planning application or to approve a restoration/landscaping scheme for the final quarry faces. <u>Design of Excavated Quarry Slopes</u> B3. This section refers to excavated slopes at new quarries and extensions to existing quarries, either laterally or in depth. Careful design procedures are always required but particularly when any slope is planned to approach a third-party structure. It is not possible to establish critical distances of approach to third-party structures, which are generally applicable, or to specify standard slope angles. Designing a slope to ensure no adverse impact of instability on adjacent land requires consideration of: • rock and soil materials; • geological structure; • groundwater conditions behind the excavated slope; • depth of excavation; • benching system employed; and • periods for which the face will be exposed. B4. Ideally, excavated slopes should be designed having regard to all the geotechnical constraints listed above; investigation and design should be carried out by a competent person. In some cases, the competent person may determine on the basis of an initial appraisal that the geological structure is such that the likelihood of failure is negligible and that a fully detailed assessment is not necessary. In other cases, features such as clay bands within strong rocks or high water pressures behind or beneath the quarry slopes may influence ground stability at substantial distances beyond the limits of excavation; in such cases, the existence of a significant hazard to land and property will necessitate a full assessment of slope stability issues. <u>Information to be collected</u> B5. The design of excavated slopes and their potential effects on third-party property requires the collection of data on the site of the excavation and any contiguous land that might be affected by it. This data should be collected by means of survey, tests, boreholes or groundwater assessments on a range of relevant items as listed below. Use should always be made of information from previous investigations. It may not be necessary to collect and report all the information listed provided that a reason is given for any omissions. The decision on what is required to check the stability of proposed slopes and to design stable slopes is a matter for the competent person. *A. Existing features* i. location of all services and features which may need to be protected; ii. location of abandoned services that might jeopardise slope stability; iii. location of active and abandoned mine and quarry workings, including back-filled workings;	

iv. location of all natural drainage features including springs, seepages and watercourses;
v. configuration of existing natural and excavated slopes in analogous settings in the neighbourhood, including any existing instability.

B. Geology: Superficial materials
i. thickness, nature and properties and base levels of superficial materials and their variability;
ii. groundwater levels within superficial deposits;
iii. location and details of any boreholes, trial pits or exposures used to investigate superficial materials;
iv. details of pertinent laboratory tests;

C. Geology: Bedrock materials
i. thickness, nature and properties of different rock types and their relative positions and the depths and nature of weathering;
ii. orientation and character of pertinent structural features (eg bedding, cleavage, faults, joints and other discontinuities);
iii. presence of significant aquifers and groundwater levels and pressures therein;
iv. location and details or any boreholes or exposures used to investigate bedrock and groundwater characteristics;
v. details of any pertinent laboratory tests.

D. Proposed works
i. proposed slope configurations, including positions and elevations of toe and crest of final slope and positions, elevations and widths of benches within the slope;
ii. position of any proposed surface or sub-surface drainage measures;
iii. location of any proposed surcharge structures such as amenity/baffle banks or spoil dumps which may affect stability;
iv. siting of any lagoons or settlement ponds.

Plans and cross-sections

B6. A design report for excavated slopes should be fully illustrated with plans and cross-sections, which summarise the information that has been collected and used in the slope design. In particular, a plan of the proposed slope should be prepared at a scale of not less than 1:2,500 with accurate cross-sections at a scale of not less than 1:1,250 along the line of maximum gradient of the slope and at intervals along the slope of 250m or less as appropriate to the scale of the undertaking and the geological and geotechnical setting. The scale of the cross-sections should enable the thickness, position and character of materials behind the slope to be shown as well as the groundwater assumptions used in any stability analyses. The plan should cover the site of the excavation and any contiguous land that might be affected by it and should show all existing features and the proposed works, together with surface contours and the OS National Grid. Additional plans or overlays may be used to present pertinent geological and structural features relevant to superficial and bedrock materials.

Slope design

B7. The information collected and the plans and cross-sections should be appraised by the competent person in respect of potential mechanisms by which the slope might fail and analyses of those mechanisms to assess the risk of failure or the level of safety. Analyses of slopes near third-party property should conform to current good geotechnical practice and be appropriate to the quality of information and the risks involved. The factors of safety or risk of failure used in slope design should conform to those used in civil engineering.

B8. In reporting his appraisal, the competent person should specify:

- potential modes of failure which it is reasonable to consider;
- pertinent conditions and material properties and groundwater assumptions used in any stability analyses;
- methods of analysis used to assess the stability of the proposed slope or the reasons analyses are not necessary;
- findings and implications of any stability analyses, including the long-term security of the slope where appropriate.

B9. Where analyses are undertaken to determine a slope configuration rather than to confirm the stability of proposals, the competent person should also specify for bedrock and superficial materials if necessary:

- maximum overall slope from the crest to the most critical point of approach on the excavated slope;
- maximum slope height appropriate to overall slope angle;
- safe distance of approach to the site boundary/any structure and the overall safety of the slope;

- proposed distance of approach; and
- other relevant matters (eg precautions to be employed, type or rate of excavation, benching system to be employed, direction of advance of excavation, design life of structure).

B10. Any design report submitted as an appraisal or assessment of stability issues with a planning application, with a restoration/landscaping scheme or as part of the review of an old mineral permission under the Environment Act 1995, should be prepared by the competent person. It should include the findings of the investigations (paragraph B5), the plans and cross-sections (paragraph B6) and the appraisal of the proposed slopes (paragraphs B8, and B9 if appropriate).

Assessment of Existing Slopes

B11. An assessment of existing slopes will be needed if a collapse has occurred or is threatened, or in any other situation where the competent person considers such an assessment to be appropriate. This should examine the security of existing slopes in both active and abandoned quarries to determine the level of risk and the need for preventive or remedial measures. An assessment of stability will also be required when development is proposed above or below abandoned quarry slopes or other excavated faces.

Information to be collected

B12. In principle, the investigations necessary to assess the stability of existing slopes are identical to those for proposed slopes. In practice, if unacceptable ground movements are threatened a more rapid investigation and reporting of recommendations may be required. For slopes in abandoned quarries where there is no immediate urgency due to actual or apprehended ground movement, information should be collected by means of survey, tests, boreholes etc on existing features/services and on the geology of superficial and bedrock materials in the same way as for proposed slopes.

A. Existing information

Any pertinent records should be examined (eg reports from previous investigations); these may include data on:

- superficial and bedrock materials, including groundwater conditions;
- existing features/services on or near the slope;
- plans and cross-sections;
- any slope investigation or design details;
- age of slope and history of performance, including information on any previous slope failures.

B. Investigations

Without taking undue personal risks, the slope should be inspected by a competent person in accordance with paragraphs B15-17 below and information obtained on the following:

- slope configuration, ie an accurate survey including the overall geometry with alignment, elevation and width of any benches and the inclination of individual sections of the slope and the ground behind the slope;
- location and extent of any distress in the slope including items noted in paragraph 16 below;
- thickness and character of superficial materials;
- position and character of bedrock materials, particularly the location of weak, heavily broken or deeply weathered rocks or engineering soils;
- position, inclination and character of any structural features such as bedding planes, faults joints etc likely to influence stability;
- position of surface seepages of groundwater and any areas where exposed faces are damp/dry; and
- location and condition of any engineering works likely to be important, eg exposed mine workings/subsidence damage, buried services, surcharging structures, surface drainage measures behind the slope.

Assessment

B13. The information obtained should be presented in an illustrated report, using photographs where necessary, and should be used to prepare an accurate plan and cross-sections as required. The competent person should then assess:

- the most likely mode of slope failure that might occur;
- the actual mode of slope failure that is in progress;
- the extent and size of likely ground movements both behind and in front of the excavated slope; and

	• means by which ground movements and/or rockfall may be avoided, arrested, restricted and/or further investigated B14. The best methods of analysis should be employed appropriate to the information available and the perceived risks to people and structures. In reporting the assessment, the competent person should identify the methods of stability analysis employed or the reason why such analysis was not necessary. The report should include observations on the safety of any proposed engineering works above, on or below the excavated slope. It should be noted that rockfall (uncontrolled collapse from the face of less than $10m^3$ of material) is generally only a hazard to people and structures beneath the quarry face. Depending on its nature and scale, a slope failure may put at risk both those within and outside a quarry and either above or below the face. <u>Inspection</u> B15. The Quarries Regulations 1999 require inspection of faces above places of work or roadway before work starts or re-starts. More detailed inspections may be carried out from time to time, particularly following any actual or potential incident of instability. The faces of abandoned quarries should also be inspected by the owner or occupier as part of the assessment following an incident or preceding development above or below the face. Many features to be found in excavated rock slopes may indicate incipient rock fall or slope failure. Inspection should concentrate on identifying those features (Fig A1),on recording visible changes and on noting circumstances which were not anticipated and which may be significant in terms of safety. Inspections should be carried out only by those with sufficient knowledge training and experience; inspection reports should be reviewed promptly and assessed by the competent person. B16. The inspection report should be illustrated where necessary with plans, diagrams and photographs and it should note the date and time of inspection, the date of the previous inspection, the location and time since excavation of the bench/slope and current and antecedent weather. It should note in particular any recent or active rockfall or slope failure with details of the location, size or extent and materials involved; any unexpected geological conditions since the previous inspection; and other changes in slope conditions or features of note. The presence or absence of the features illustrated in Fig A1 and listed below should be noted with appropriate details on location, extent and materials involved: • lowering of ground surface or cracking at or behind the crest of the slope/bench; • water running over the crest or entering cracks behind the crest of the slope/bench; • new accumulations of water behind the crest or at the toe of the slope/bench; • additional loading of ground behind the crest of the slope/bench; • bulging of face or displacement across discontinuities; • open structural features inclined out of or steeply into the face; • loose material on or water issuing from the face; • irregularities in gradient or plan of the face; • ground movements or water issuing at or in front of the toe of the slope/bench; • indications of silting, impending or partial blockage, recent overflowing, bank erosion or inflow into superficial or bedrock deposits in water courses/lagoons behind the slope crest. B17. This information should then be incorporated into the assessment of the slope face described in paragraphs B13-14 above, particularly in respect of any face that has suffered or is likely to suffer from instability and/or where development is proposed above or beneath the face.	
Appendix C	**Appendix C: Guidelines on the Design, Assessment and Inspection of Tips** C1. The proper design of tips, as defined in the Quarries Regulations 1999, is the responsibility of the quarry (or mine) owner. It must comply with statutory requirements under the Health and Safety at Work etc Act 1974 and the Quarries Regulations 1999 (and the Mines and Quarries (Tips) Act 1969 and associated regulations). The requirements for inspection, appraisal and geotechnical assessment of quarry tips are set out in the Quarries Regulations 1999 and the Approved Code of Practice. Design, reporting and inspection procedures for tips associated with mines are set out in the Mines and Quarries (Tips) Regulations 1971. Individual operators often have their own checklists for the several types of inspection required. If instability occurs, informed assessments are needed of the actual risks and to consider appropriate emergency measures or remedial treatment. Inspection and assessments may also be necessary when development is proposed on or near to tips. C2. These guidelines were prepared as part of DOE research on the stability of quarry tips and backfill (Geoffrey Walton Practice, 1991). They are intended to apply to tips as defined in the Quarries Regulations 1999. They are also relevant to tips arising from underground mining activities or from other industrial development. They seek to identify the steps to be followed and the type of data to be collected when designing, assessing or inspecting tips and related structures. As with the quarry face guidelines in Appendix B, they are not alternative measures to those required by statute but they illustrate good practice in meeting those requirements. They should be seen as assisting in the general aim of constructing and maintaining secure tips, especially where safety of third-party land and structures beyond the perimeter of the site is an issue.	

Design of Tips

C3. This section refers to tips on new sites or at existing operations. Careful design procedures are always required but particularly when soil, waste and water-retaining structures are sited near third-party property and wherever underground mine workings and solution cavities or other natural or man-made caverns are known to lie in the vicinity of excavated or embankment lagoons. The extent of detailed design required depends on:

- materials used in construction;
- foundation materials and structure, both natural and artificial;
- groundwater conditions;
- surface water management;
- proposed geometry and life of the structure; and
- proximity to property and services.

Information to be collected

C4. The design of a tip requires the collection by means of surveys, boreholes, tests and review of appropriate records for the following items pertinent to stability and safety. It may not be practicable to collect all the information listed, provided that a reason is given by the competent person for any omissions. However, certain information must be collected in respect of classified tips to satisfy statutory requirements.

A. Existing features/services

i. topographic survey of the site and nearby ground which might be affected by or affect the proposed tip, contoured at not greater than 2.0m vertical interval;
ii. location of all active and abandoned services and facilities beneath, on and above the proposed site and adjacent land which may need to be protected or that might jeopardise the security of the structure;
iii. location of both active and abandoned mines and quarry workings, including the position of shafts, adits and underground working galleries or levels, quarry benches and faces and the limits of previously back-filled quarries and other existing tips;
iv. location of all natural or artificial watercourse, springs, seepages, ponds, waterlogged and peaty areas, any sinks, caves or hollows receiving surface water and indications of changes in groundwater levels;

v. location of any surface features resulting from ground instability, including active, dormant or former landslipping or related ground movements and subsidence fissures, crown holes or hollows.

B. Geology: superficial materials

i. thickness, nature and properties and base levels of superficial materials, both natural and placed, and their variability;
ii. details of water levels and variations in levels in superficial materials;
iii. location and details of any boreholes, trial pits or exposed surfaces used to investigate superficial materials;
iv. details of pertinent laboratory tests; and
v. other relevant information appropriate to the behaviour of superficial materials as a foundation for structures or when excavated or stockpiled.

C. Geology: bedrock materials

i. thickness, nature and properties (including variations) of different rock types and pertinent structural features and weathering zones to depths appropriate to the intended structure;
ii. presence of aquifers with details water levels and variations in levelincluding artesian or sub-artesian pressures at depths within the bedrock appropriate to intended structure;
iii. location and details of any boreholes or excavations used to investigate bedrock and groundwater conditions;
iv. details of any pertinent laboratory tests; and
v. other relevant information appropriate to the behaviour of bedrock as a foundation material or when excavated or stockpiled.

D. Proposed works

i. nature (including grading, moisture contents, etc) of materials used in construction;
ii. internal structure, including proposed layering, thickness of layers, drainage blankets, disposition of different materials within the structure including surface treatment;
iii. geometry and surface limits (within area covered) of proposed structure, including inclination of ground covered, proposed side slopes (contours) and heights at all stages of construction, position and size of benches, widths and heights of embankments or other retaining walls, total quantities of solid materials and impounded liquids

with or without wastes in suspension, areas of impounded water, freeboard heights;
iv. proposed surface and subsurface drainage arrangements, means of collecting surface water drainage and measures to control water pressures or levels within, beneath or behind structures. For impounded liquids with or without wastes in suspension, details of inflow and outflow arrangements (including emergency measures) and details of excavated or spoil slopes adjacent to structures;
v. proposed ground preparation or foundation treatment including details of types and thicknesses of materials to be removed prior to construction, and details of proposed formation levels and gradients and related provisions for drainage;
vi. rates of construction by reference to metres raised per year and quantities deposited weekly, annually and in total and methods of placement of solid spoil including proposed compaction procedures; and
vii. nature and extent of supervision and inspections during construction and actions to be taken in the event of perceived danger or dangerous occurrences.

Plans and cross-sections

C5. Plans of the proposed tip or related structure should be prepared at a scale of not less than 1:2,500 together with accurate cross-sections at a scale of not less than 1:1,250. They should cover the site of the tip or related structure and any contiguous land, which might be affected by the proposed tip and should show, where appropriate:

i. surface contours at not greater than 2m vertical interval and the location of all existing features/services;
ii. inferred contours (not greater than 5m vertical interval) on base of superficial deposits, on identified strata (or details of dip and direction of dip of bedrock strata, and of groundwater levels (or recorded range);
iii. positions of faults and inferred boundaries between different bedrock materials;
iv. positions of zones of tensile or compressive strain resulting from underground mining and/or any suspected voids or caverns beneath the site;
v. positions of all boreholes , trial pits etc;
vi. positions of cross-sections; and
vii. details of proposed structure indicating the items set out under proposed works above.

C6. Cross-sections should be prepared incorporating the information listed above and showing variations in thickness and character of superficial and bedrock materials relevant to stability. They should correspond to the line of maximum overall gradient of the proposed structure and also be parallel to the line of maximum overall gradient of the foundation surface and/or of any relevant horizon in material beneath the foundation. The positioning and spacing of cross-sections should allow for the highest and most critical points of the structure to be assessed for use when appropriate in subsequent stability analyses. Cross-sections of any fluid-retaining structures should also show inlet and outlet levels, normal operating water levels and emergency outlet/diversion arrangements.

Design

C7. The information collected and the plans and cross-sections should be appraised by a competent person in respect of potential mechanisms, by which the tip or related structure could fail, and analyses of those mechanisms to assess the risk of failure or the level of safety. Analyses of structures, especially those near third-party property, should conform to current good practice and be appropriate to the quality of information available and the risks involved. The factors of safety or risk of failure used in design should conform to those used in civil engineering.

C8. In reporting his appraisal, the competent person should specify:

- potential modes of failure which it is reasonable to consider;
- pertinent conditions and material properties and groundwater and drainage assumptions used or assumed in any stability analyses;
- methods of analysis, or the reasoning used to assess the security of the proposed structure; and
- findings and implications of any analysis or assessment, including the long-term security of the proposed structure.

C9. Where analyses are undertaken to determine the configuration of the structure, rather than to confirm the viability of proposals, the competent person should also specify for tips and for embankments retaining liquid or solid waste:

- maximum overall slope from the crest to the toe of the structure;
- maximum slope height appropriate to overall slope, given the most adverse foundation gradient anticipated;
- safe distance of approach of any excavations to the toe of the structure; and
- other relevant matters (eg width of embankments at crest level, foundation preparation, rates of construction, provision of internal and external drainage measures,

maximum gradients for inner slope of embankment, acceptable ground vibrations, maximum level of retained liquids, security of slopes above impounded water etc).

C10. The design report submitted with a planning application, a notification of proposals for works permitted by the GPDO 1995, a restoration/landscaping scheme or as part of the review of old mineral permissions should be prepared by the competent person. It should include the findings of the investigations (paragraph C4), the plans and cross-sections (paragraphs C5-6) and the appraisal of the proposed structure (paragraphs C8, and C9 if appropriate).

Assessment of Existing Tips

C11. The Quarries Regulations 1999 require the operator to prepare and implement a scheme of inspection of all parts of the quarry, including quarry tips, and the Advisory Code of Practice and guidance includes a model checklist and report form for inspection reports. The Mines and Quarries (Tips) Regulations 1971 lay down minimum inspection frequencies and reporting procedures for all tips associated with active mines and quarries and reporting requirements in the event of a dangerous occurrence. There may also be a requirement for assessment of a tip or related structure where a competent person considers it to be necessary, eg prior to tip reworking or when development is proposed near the toe or on top of such a structure.

Information to be collected

C12. In principle, the investigations necessary to assess the stability of an existing tip are identical to those for proposed tips. In practice, especially if unacceptable ground movements threaten, less time may be available for an assessment of security and a more rapid inspection, investigation and reporting procedure is required. The guidelines below are intended to assist all interested parties in the systematic inspection of tips and related structures; notification and investigation procedures should always conform to statutory requirements.

A. Existing information

Any pertinent records (eg reports from previous investigations) should be examined for data on:

- existing features/services near, on or beneath the structure;
- superficial and bedrock materials, including groundwater conditions;
- details of any ground investigation or design report, including, where relevant, all records required to be kept by legislation;
- construction details, locations and types of tipped materials;
- plans and cross-sections;
- age of the structure and history of the development of the structure and its performance; and
- recent rainfall records.

B. Investigations

Without undue risk, the structure should be inspected by a competent person in accordance with paragraphs C15-17 below and information obtained on the following:

- geometry of the structure (by accurate survey, if necessary using targetless survey techniques where safety precludes access) including alignment, elevation and widths of any benches, drainage arrangements and inclination of individual sections of slope;
- materials used in construction;
- location and size/extent of any distress in the structure including items noted in paragraph 16 below, eg tension cracks, bulging etc;
- character and inclination of foundation materials;
- position of surface seepages of water;
- performance of drainage arrangements on, in or beneath the structure; and
- location of any engineering works likely to be important, eg mine workings, buried services, surcharging structures.

Assessment

C13. The ormation obtained should be presented in an illustrated report, using photographs where appropriate, and should be used to prepare an accurate plan and cross-sections as required. The competent person should assess:

- the most likely mode of failure that might occur;
- any mode of failure that is in progress;
- the extent and size of likely movements, discharge of fluids etc; and

- means by which movements etc may be avoided, arrested, restricted and/or further investigated.

C14. The best methods of analysis should be employed appropriate to the information available and the perceived risk. In reporting the assessment, the competent person should note the methods of analysis or reasoning employed or why an analysis was not necessary. The report should include observations on the safety of any proposed engineering works above, on or below the tip or related structure.

Inspection and Reporting

C15. The Quarries Regulations 1999 require operators to operate a scheme for the systematic inspection of all parts of a quarry. Inspections of all active and closed tips at appropriate intervals are also required by the Mines and Quarries (Tips) Regulations 1971. Careful inspection of tips and related structures may reveal features associated with incipient movements or failure. Inspections should concentrate on identifying those features (Figure A2), on recording visible changes, confirming that construction is proceeding according to the tipping rules and noting circumstances that were not predicted and which may be significant in terms of safety.

C16. The inspection report should be illustrated where necessary with plans, diagrams and photographs. It should note the date and time of inspection, the date of any previous inspection, the structure inspected, its age and stage of construction and current and antecedent weather. It should note in particular any recent or active slope failure/movements with details of the location, size or extent and materials involved, any unexpected conditions since the previous inspection and other changes in slope conditions or features of note. The presence or absence of the features illustrated in Figure A2 and listed below should be noted with appropriate details on location, extent and materials involved:

- lowering or settlement of surface or cracking at or behind the crest of the structure;
- water running over crest or entering cracks behind the crest of the structure;
- new accumulations of water behind the crest or at the toe of the structure;
- surcharging of ground behind the crest of the structure;
- bulging or settlement of slope face;
- loose material eroding or being washed out of or water issuing from slope face;
- irregularities or changes in gradient or plan of the slope face;
- indications of blocked drainage blankets;
- ground movements or water issuing at or in front of the slope toe;
- excavations at or near the toe of the structure;
- indications of silting, impending or partial blockage, recent overflowing, bank erosion or inflow into superficial or bedrock deposits in water courses near the structure;
- adverse drainage from access roads;
- indications of burning, fumes, smoke or steam;
- indications of recent ground movements due to mining, solution cavities or landsliding;
- construction varying from plan; and/or
- instruments recording movements or rises in water levels or damaged.

C18.Additional observations for water-retaining structures confining water with or without waste in suspension (or weak but solid materials) should note particularly any abnormal flows of water in or near the structure or unaccountable changes in flow in water courses, drains and culverts and any indications of recent increases or falls in water or sediment level. The presence or absence of the following should be noted:

- wave erosion inside embankment;
- impedance of inflow, outflow or storm flow;
- freeboard less than minimum required;
- signs of damage due to burrowing animals or cattle; and
- escape of materials in suspension or solution.

C19. This information should then be incorporated into the assessment of the structure described in paragraphs C13-14 above, particularly where any structure has suffered or is likely to suffer from instability and/or where development is proposed above, on or below the structure. A record should be made of all proposed remedial works whether or not failure has occurred or is assessed as being likely to arise.

Appendix D	**Appendix D: References.** DEPARTMENT OF THE ENVIRONMENT, 1990. *This common inheritance: Britain's environmental strategy*. Cm 1200, September 1990, London, HMSO, pp. DEPARTMENT OF THE ENVIRONMENT, 1990. *Planning policy guidance note 14: Development on unstable land*. London, HMSO, 25pp. DEPARTMENT OF THE ENVIRONMENT, 1994. *Planning policy guidance note 23: Planning and pollution control*. London, HMSO, 40pp. DEPARTMENT OF THE ENVIRONMENT, 1996. *Planning policy guidance note 14 Annex 1: Landslides and planning*. London, HMSO, 17pp. DEPARTMENT OF THE ENVIRONMENT, 1997. *Minerals planning guidance note 7: The reclamation of mineral workings.* London, TSO, 53pp. GEOFREY WALTON PRACTICE, 1988. *Handbook on the hydrogeology and stability of excavated slopes in quarries for the Department of the Environment*. London, HMSO, 53pp. GEOFFREY WALTON PRACTICE 1988. *Technical review of the stability and hydrogeology of mineral workings for the Department of the Environment.* London, HMSO, pp. GEOFFREY WALTON PRACTICE, 1991. *Handbook on the design of tips and related structures prepared for the Department of the Environment.* London, HMSO, 156pp. HEALTH AND SAFETY COMMISSION, 1999. *Health and safety at quarries: Quarries Regulations 1999, Approved Code of Practice*. London, HSE Books, 94pp.	

MPG7: RECLAMATION OF MINERAL WORKINGS - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
8	Reclamation policies in development plans *General principles* Structure plans and Part 1 of Unitary Development Plans (UDPs) should express in general terms the Mineral Planning Authority's (MPA) strategy for mineral working and related development taking into account national and regional policies. They should provide policy guidance to applicants including in general terms the need for restoration and aftercare of mineral workings.	Specific policy.
9	Minerals local plans (or minerals and waste local plans), district-wide local plans of the new unitary authorities (where authorised to include minerals and waste policies), and Part II of the UDP's provide an opportunity for local authorities to develop in detail the policies and plans for their area. They should provide policy guidance to applicants on appropriate uses of land within the plan areas. This should assist in the early identification of the most appropriate after-use for a mineral site…	Specific policy.
10	When drawing up their plans, local authorities should have regard to Government policies on land use…	Specific policy.
13	National land use policies and reclamation of mineral sites *Agriculture* … Where minerals underlie the best and most versatile agricultural land it is particularly important that restoration and aftercare preserve the long-term potential of the land as a national, high quality, agricultural resource.	Specific policy – although this is incorporated also in para 14.
14	Government policy seeks also to encourage the diversification of the rural economy where this will not result in the significant loss of high quality agricultural land. Therefore whilst agriculture remains the most appropriate after-use for many mineral sites, other uses such as forestry and some forms of amenity including nature conservation (e.g. heathland or unimproved grassland), should also be considered on land which was originally in agricultural use. Where these alternatives are proposed on the best and most versatile agricultural land, the methods used in restoration and aftercare should enable the land to retain its longer-term capability to be farmed to its land classification potential, thus remaining a high quality agricultural resource for the future…	Specific policy.
17	*Forestry* The Government's forestry policy document "Forestry policy for Great Britain", was published by the Forestry Commission on behalf of Forestry Ministers in September 1991. This seeks the steady expansion of forestry in ways that are in sympathy with the landscape and meet relevant environmental criteria. The White Paper "Rural England - A nation committed to a living countryside" published in 1995, went further, stating that the Government would like to see a doubling of woodland in England over the next half century.	Specific policy.
18	In 1994 the Government published the report "Sustainable forestry, the UK programme"; it is also supporting the joint initiative of the Forestry Commission and the Countryside Commission to create a "National Forest" and a series of new "Community Forests", in several parts of England… … Therefore, in the areas of the "Community Forests", the National Forest, and in preferred areas as identified in IFSs, structure plans and minerals local plans should give consideration to inclusion of policies for the after-use of mineral sites to forestry and amenity woodland.	Specific policy.
20	*Landfilling of surface mineral workings* Under the 1990 Act, county councils and National Park Authorities are required to prepare waste local plans or combined minerals and waste local plans. Unitary planning authorities should include waste policies in their unitary development plans.	Specific policy.
21	… Waste local plans therefore need to take account of minerals local plans…	Specific policy.
22	Imposing reclamation conditions for new permissions General considerations In granting planning permission for mineral working, MPAs should always carefully consider the applicant's proposals for reclamation of the site, how and whether the proposals are likely to achieve the intended results and, therefore, how requirements to ensure satisfactory reclamation can be incorporated into appropriate planning conditions. It is equally important that the applicant should thoroughly understand, and make financial provision for, the responsibilities he will be taking on under the reclamation conditions likely to be imposed on a planning permission.	Specific policy.
24	Planning conditions for reclamation should normally be framed with the intended after-use in mind. However, separate planning permission is likely to be required for any after-use except: i. agriculture and forestry (excluded from the definition of development in section 55 of the 1990 Act), ii. uses which are included in the Town and Country Planning (General Permitted Development) Order 1995, and iii. nature conservation and informal recreation which do not involve substantial public use. Any application for development on a current or disused mineral working site which would conflict with or prejudice compliance with a restoration and aftercare condition imposed in respect of the mineral working will be dealt with by the MPA.	Specific policy.
28	Environmental assessment Where proposals for development are likely to have significant effects on the environment, they will need to be subject to an assessment of those effects under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988.	Specific policy.

33	Drawing up reclamation conditions *General* …Where a permission is granted, therefore, the conditions should be drafted in such a way that, even if the interest of the mineral operator applying for permission is subsequently disposed of, the requirements for reclamation can still be fulfilled, whether by a new operator or in the case of default, by the land-owner. The general principle is that a MPA should take into account whether it is feasible to implement the applicant's reclamation proposals successfully.	Specific policy.
34	Planning conditions for reclamation should be specific to the proposed site and should normally be framed with the intended after-use in mind.	Specific policy – repeat of para 24
40	*Landform and landscape* In preparing a planning application for either a new site or any significant extension to an existing working, the applicant/operator should develop a site-specific landscape strategy, which includes: i. defining the key landscape opportunities and constraints; ii. considering potential directions of working, significant waste material locations, degrees of visual exposure etc; iii. identifying the need for additional screening during operations; iv. identifying proposed after-uses and preferred character for the restored landscape.	Specific policy.
43	The intended final landform, gradients and drainage of a site should be designed and specified at the outset, with controls in planning conditions as appropriate. For many sites there may need to be some flexibility, and a continuation of the iterative design process, to take account of changes necessitated by operational, geological and mineral working safety demands. However, major planned final landform elements are not easily adjusted when extraction is almost complete, and modifications should not compromise the overall environmental acceptability of the scheme.	Specific policy.
44	Wherever possible and safe to do so the natural gradients and rock features of the surrounding landscape should be imitated when forming new screening banks, soil storage bunds and final faces…	Specific policy.
50	Filling and fill materials *Backfilling or infilling with mine and quarry wastes* Filling of a mineral void with these materials will be controlled by planning conditions. The conditions will need to address both the manner and sequence of filling the excavation and specify, usually by appropriate reference to plans and cross sections, the intended gradients, landform and contours of the final surface. Allowance should be made for predicted final settlement. Mine and quarry wastes are not controlled wastes as defined under the Environmental Protection Act 1990 (the EPA 1990).	Specific policy.
55	Restoration … Restoration conditions also need to cover remedial treatment of soil so as to facilitate the use of cultivation, harvesting and drainage equipment for the aftercare period and the longer-term management of the land.	Specific policy.
59	Aftercare *Aftercare consultations and responsibilities* Before imposing an aftercare condition, the MPAs are required to consult the appropriate Agriculture Minister (through the regional Land Use Planning Units of MAFF) where they propose that the land should be used for agriculture, and to consult the Forestry Commission where they propose that it should be used for forestry.	Specific policy.
61	Provided the necessary information has been submitted by the operator (see Boxes 5 and 6 in Annex A) then the consultations required for successful aftercare to take place should not be allowed to lead to undue delay in the grant of planning permission or the completion of an agreement on the aftercare condition or scheme.	Specific policy.
62	*Form of aftercare conditions* … An aftercare scheme will usually be appropriate with a long-term permission where restoration and aftercare may not be begun for a number of years. It should provide a flexible framework for a successful programme of aftercare. There may, however, be cases where it would be appropriate to specify aftercare steps in the aftercare condition itself - e.g. where mineral working will be short-term and the aftercare relatively straightforward, or for the first phase where progressive restoration and aftercare are to be carried out relatively quickly.	Specific policy.
70	*Financial responsibility for aftercare* … It is important that the likely aftercare requirements are made clear at the outset so that operators are aware of the cost implications involved, and can make provisions for them.	Specific policy.
74	*Aftercare and agricultural set-aside* Before seeking to set land aside farmers and landowners are therefore advised to ensure that they are capable of meeting both aftercare planning requirements and AAPS management rules. Where this cannot be achieved land should not be set aside.	Specific policy.
75	Planning obligations … However, planning obligations which are sought should fairly and reasonably relate in scale and kind to the proposed development.	Specific policy.
82	New or improved reclamation conditions for existing permissions and workings, including interim development orders and old mineral permissions The new schemes should include provisions for landform, restoration and aftercare of sites to a suitable after-use. Where a site is already subject to satisfactory conditions	Specific policy.

	providing for restoration and aftercare there should be no need to alter them. In all other cases, appropriate restoration and, where relevant, aftercare conditions should be imposed and provision should be made for reclamation to an appropriate after-use as soon as practicable.	
86	Financial provision for reclamation It is Government policy that properly worded and relevant planning conditions which are complied with and, where necessary, enforced, should be able to secure the restoration, aftercare and after-use of mineral sites. No payment of money or other consideration can be required when granting a planning permission except where there is specific statutory authority… … Financial guarantees to ensure the reclamation of mineral sites should therefore not normally be required, and policies in development plans should not state that a local authority will require or seek bonds other financial guarantees to underpin planning conditions.	Specific policy.
91	Responsibility for the restoration and aftercare of mineral sites lies with the operator and, in the case of default, with the landowner. Applicants should, therefore, demonstrate with their applications what the likely financial and material budgets for restoration, aftercare and after-use will be, and how they propose to make provision for such work during the operational life of the site. This is important to avoid future dereliction and the possibility that the costs of reclamation of mineral sites might have to be borne by other public or private sources.	Specific policy.
93	Any demonstration by an operator of how they intend to make financial provision for restoration, aftercare and after-use should relate to the development proposed. MPAs should not seek a demonstration or provision of unlimited cover for unspecified future liabilities or for matters where normal planning mechanisms would apply. In particular MPAs should not seek financial guarantees from applicants, prior to the grant of planning permission, to deal with possible future breaches of planning controls that can be dealt with through existing planning enforcement powers and procedures.	Specific policy.
94	There may remain exceptional cases where it will be reasonable for an MPA to seek a financial guarantee to cover restoration (including aftercare) costs, through a voluntary agreement/planning obligation at the time a planning permission is given. Examples of such situations may be: i. for very long-term new projects where progressive reclamation is not practicable, such as a super-quarry or some types of industrial or metalliferous mineral sites, where incremental payments into a secure fund may be made as the site develops; ii. where a novel approach or technique is to be used, but the MPA considers it is justifiable to give permission for the development; iii. where there is reliable evidence of the likelihood of either financial or technical failure, but these concerns are not such as to justify refusal of permission. However, it is the Government's view that where an operator is contributing to an established mutual funding scheme, such as the SAGA Restoration Guarantee Fund, it should not be necessary for an MPA to seek a guarantee against possible financial failure, even in such exceptional circumstances.	Specific policy.
95	There are some other circumstances where a financial guarantee might be appropriate as part of a planning obligation, including where the mineral developer contributes funding towards management of the new after-use of the land which needs to last beyond the formal aftercare period (see Annex D and paragraph A27 in Annex A for examples). In such cases the funding would not arise from fears of restoration failure, but because it is an acceptable provision to enable the mineral development to proceed.	Specific policy.
96	The Government's industrial policy includes support for small and medium sized enterprises (SMEs). Operators of mineral sites in Britain include large companies operating at national or international scales and smaller, local operators. It is important that where MPAs may seek specific financial guarantees for site reclamation, this does not unfairly discriminate against smaller operators. Therefore, all planning controls must be applied on an even-handed basis, regardless of the size of the operator.	Specific policy.
98	Monitoring and enforcement of restoration, aftercare and related site operations … Mineral operators should ensure that good records of all relevant planning documents, and of operations carried out, are kept at each site; and similar information should be held by the MPA.	Specific policy.
100	MPAs should also have a planned series of visits to sites to check on key activities at the right times, such as in advance of soil stripping and stages of restoration, in addition to routine monitoring and recording of progress.	Specific policy.

MPG7: RECLAMATION OF MINERAL WORKINGS - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
Overview	Overview Mineral Planning Guidance Notes (MPGs) set out the Government's policy on minerals and planning issues and provide guidance to local authorities, the minerals industry and others on policies and the operation of the planning system with regard to minerals. Local planning authorities must take their contents into account in preparing their development plans and in decisions on individual planning applications. This MPG deals with policies, consultations and conditions which are relevant to achieving effective reclamation of mineral workings. It should be read in conjunction with the general guidance in MPG1, MPG2 , MPG4, MPG9 and MPG14. The guidance: • sets out the contribution which reclaimed mineral sites can make to the Government's policies for sustainable development and mineral working, and for land use and other policies in the wider countryside; • advises on the scope of information which should be provided with applications for new mineral developments, to enable relevant planning conditions to be drawn up and resulting site reclamation to be achieved; • provides some advice on preparation of schemes of conditions for restoration, aftercare and after-use which owners/operators of older mineral sites may need to draw up for future reviews of such sites; • emphasises the importance of the roles played by the management of site activities by mineral operators and by development control monitoring and enforcement by local authorities, in achieving successful site reclamation; • advises on financial provision in relation to securing restoration of mineral workings; • contains more detailed advice, in Annexes, on soils, reclamation, aftercare and after-use.	
1	Introduction *Planning principles for the reclamation of mineral workings* Minerals make an essential contribution to national prosperity and in improving the quality of life. However, their extraction can have significant environmental effects and abandoned sites have, in the past, been one of the country's major causes of dereliction. The Government is committed to minimising the adverse environmental consequences of minerals extraction, and have published a sustainable development framework for minerals in "Sustainable Development: The UK Strategy" (Cm 2426 January 1994). An important element of this framework is to ensure that land taken for minerals is reclaimed at the earliest opportunity, and to a standard suitable for the intended use.	
2	Restoration and aftercare should provide the means to maintain or, in some circumstances, even enhance the long-term quality of land and landscapes taken for mineral extraction. This will be to the benefit of local communities and ensure that a valuable natural asset will be passed on to future generations. Reclamation can provide opportunities for creating, or enhancing, sites for nature conservation. This can make a contribution, for example, towards achieving specific targets set in the UK Biodiversity Action Plan. Examples include creating new semi natural habitats and providing appropriate locations for the reestablishment of threatened species	
3	The overall standards of reclamation have continued to improve over recent years, and with the development and implementation of appropriate reclamation techniques, there is potential for land to be restored to a high standard suitable for a variety of uses. Consistent and diligent application of the appropriate techniques will ensure that a wide range of sites are restored to appropriate standards. This may lead to the release of some areas of land which would not otherwise be made available for mineral working, for example, the best and most versatile agricultural land. Conversely, where there is serious doubt whether satisfactory reclamation can be achieved at a particular site, then there must also be a doubt whether permission for mineral working should be given.	
4	This Minerals Planning Guidance Note (MPG7) was first published in 1989. Since then, there have been some important changes to the legislation and Government policy affecting mineral extraction. The Department has also published the results of a number of research projects which identify more clearly what is technically feasible in terms of returning land to a condition suitable for the intended after-use, and which provide guidance on best practice. A list of published DOE reports is provided in Annex E.	
5	*Statutory basis* The Town and Country Planning Act 1990 (the 1990 Act), as amended by the Planning and Compensation Act 1991 (the 1991 Act) and the Environment Act 1995, together with the General Development Procedure Order and the General Permitted Development Order, form the basis of the control of mineral development. The 1991 Act also made provision for the restoration and aftercare of landfill sites, many of which are former mineral workings. The powers introduced by the Town and Country Planning (Minerals) Act 1981 (the 1981 Act), regarding the aftercare of land following mineral extraction, have now been consolidated into Schedule 5 of the 1990 Act. The definitions introduced by the 1981 Act remain unchanged in the 1990 Act. They are summarised in Box 1, together with explanations of other non-statutory terms used in this Guidance Note.	

6	*Structure of Guidance Note* This Guidance Note gives updated advice on the planning considerations, consultations and conditions which are necessary to ensure that land worked for minerals is returned to a beneficial after-use at the earliest opportunity. It should be read in conjunction with the general guidance about planning permissions for mineral development and the imposition of planning conditions contained in MPG2 "Applications, permissions and conditions." The main text of the MPG deals with the key legislative and policy guidance. Annexes contain guidance and further sources of information on the imposition of restoration and aftercare conditions in general, and for particular types of mineral developments, and advice on the role of statutory consultees.	
7	Reclamation policies in development plans *General principles* The Planning and Compensation Act 1991 increased the importance of development plans in the determining of planning applications by local authorities. The Government is committed to a plan-led system of development control. This is given statutory force by section 54A of the 1990 Act, which provides for planning applications to be determined in accordance with the development plan, unless material considerations indicate otherwise. *Box 1* *Definitions* *(i) Statutory definitions (Schedule 5 of the 1990 Act).* *"Restoration condition"* *a condition requiring that after operations for the winning and working of minerals have been completed, the site shall be restored by the use of any or all of the following, namely, subsoil, topsoil and soil making materials.* *"Aftercare condition"* *a condition requiring that such steps shall be taken as may be necessary to bring land to the required standard for whichever of the following uses is specified in the condition, namely,* *a. use for agriculture;* *b. use for forestry; or* *c. use for amenity.* *The steps which may be specified in an aftercare condition or aftercare scheme, and hence which are included in the meaning of "aftercare", are "planting, cultivating, fertilising, watering, draining or otherwise treating the land".* *(ii) Other definitions* *"Reclamation" is used in this MPG to mean: operations which are associated with the winning and working of minerals and which are designed to return the area to an acceptable environmental condition, whether for the resumption of the former land use or for a new use.* *"Reclamation" includes both restoration and aftercare as defined in the 1990 Act. However, it also includes events which take place before and during mineral extraction (e.g. correct stripping and protection of soils); and may also include operations after extraction such as filling and contouring or the creation of planned water areas.* *"After-use" is used to mean: the ultimate use after mineral working for agriculture, forestry, amenity (including nature conservation), industrial or other development.*	
9	… However, the degree to which this is possible will depend on the characteristics of the proposed or current working, and will need to accord with other policies contained within the plan. General guidance on the development plan system for minerals is given in MPG1 "General considerations and the development plan system".	
10	… A wide range of possible options exist for suitable after-uses for mineral workings. Reclamation provides the opportunity to return land either to its original, or an	

	alternative, use of benefit to the local or wider community. Opportunities exist, for example, to enhance the recreational or nature conservation resource of an area by restoring for amenity purposes, or to contribute to initiatives such as the community forests. It is widely recognised, for example, that restored mineral workings have contributed the largest area of new wetland for nature conservation in England, going some way towards replacing primary habitat lost through other forms of development; while other sites provide important refuges for wildlife.	
11	In many cases it may be appropriate to look towards multipurpose uses of the land, combining for instance, agriculture, forestry, nature conservation and other amenity uses within single schemes.	
12	National land use policies and reclamation of mineral sites *Agriculture* Most of the land taken for mineral working in England is in agricultural use prior to extraction. Planning Policy Guidance Note 7 "The countryside and the rural economy" explains how the Government's general policy approach should be reflected in land use planning policies. Guidance on developments involving agricultural land is set out in paragraphs 2.5 and 2.6, and Annex A to the note. Advice specifically on development involving mineral working is set out in MPG1.	
13	On many sites, the ability to achieve high standards of reclamation should enable mineral extraction to occur without the irreversible loss of land quality…	
14	… A wider range of non-agriculture after-uses may be appropriate on land of lower quality. Land of lower quality and fertility may be particularly suited to nature conservation as an after-use, resulting in a greater diversity of habitats.	
15	Reclamation to non-agricultural uses does not mean that there can be any lessened commitment to high standards in the reclamation and recycling of land taken for mineral working, and they therefore should not be chosen because they are perceived as `easier options'. They require equal commitment by mineral operators, mineral planning authorities and any other parties involved to achieve high standards of implementation.	General statement more appropriate to guidance.
16	*Forestry* Forestry is defined in the 1990 Act as "the growing of a utilisable crop of timber"(Schedule 5 paragraph 2(9)). However, in recent years there has been increasing recognition that productive woodlands can form a multi-functional land use combining timber production with recreation, nature conservation and visual amenity.	
18	…Guidance has been issued (DOE Circular 29/92) to local authorities who may be considering the preparation of indicative strategies for the creation of new woodlands and forests. The Circular also explains the relationship of indicative forestry strategies (IFSs) to development plans…	
19	Amenity including nature conservation An increasing proportion of mineral workings are being reclaimed for a wide range of subsequent uses which fall into the broad category `amenity use'. These may include open grassland, country parks, informal recreational areas, conservation of landscape, natural features and wildlife, basic preparations for more formal sports facilities, amenity woodland, and water areas. In many instances a number of after-uses, including agriculture and forestry, may be integrated on a single site. Mineral workings reclaimed to amenity use can therefore contribute to Government policies in respect of recreation and nature conservation, including making a contribution to the UK Biodiversity Action Plan (see PPG7 "The countryside and the rural economy", PPG9 "Nature conservation" and PPG17 "Sport and leisure"). PPG2 "Green Belts" contains advice on mineral workings in Green Belts. Policies and proposals in structure and local plans provide the opportunity for local authorities to set a suitable strategic framework on these matters.	
21	Landfilling of surface mineral workings Some surface mineral workings can provide suitable void space for the landfilling of controlled wastes. At the same time, landfilling can provide opportunities to re-create pre-working or acceptable, new landscapes. This interaction is particularly relevant to policy considerations and good practice options for reclamation of such workings… … It is open to authorities to prepare combined minerals and waste local plans, and in National Parks waste and minerals policies may be included in the park-wide local plan. Further advice on waste local plans is in PPG23 "Planning and pollution control". The waste planning elements of PPG23 are under revision and updated guidance will be issued. Advice on the suitability of mineral voids as landfill sites is given in paragraphs 47 to 54 of this MPG.	
23	Imposing reclamation conditions for new permissions General considerations General guidance on the use of conditions in planning permissions is given in DOE Circular 11/95. More particular advice on imposing conditions on planning permissions for mineral working, including a general checklist of information which may be required by mineral planning authorities to determine the planning application, is given in MPG2. An advisory 'standard application form' has also been issued by the Department to assist developers in providing the necessary information for mineral planning authorities and statutory consultees, to assist in the efficient determination of applications. Annex A to this note provides detailed guidance on the information required to assist MPAs in liaison with statutory consultees to determine planning applications and draw-up planning reclamation conditions.	
24	…The local planning authority (where different) is likely to be responsible for determining any planning application required to implement any subsequent after-use of a reclaimed site after the requirements of the mineral permission have been satisfactorily completed and formally discharged.	
25	Pre-application considerations The drawing up of practical proposals for site reclamation will require a careful site investigation by the potential mineral operator prior to the submission of an application. The outcome of the investigation should be reflected in the documentation submitted with the application.	25, 26 and 27 are pieces of general advice.
26	It is in the applicants interest to discuss working and reclamation proposals and possible planning conditions with the MPA, prior to formal submission of an application.	

	These discussions should also involve the statutory consultees, the landowner, tenant and any other person with a relevant interest.	
27	To demonstrate that a site can be reclaimed to an acceptable standard and after-use, the applicant is advised to prepare, at the outset, a working plan which includes restoration proposals and is based upon findings from the site investigation. This should be in sufficient detail for the MPA and any statutory consultees to form a judgement as to its feasibility. For after-uses which involve some form of plant growth (eg for agriculture, forestry or amenity including some forms of nature conservation), the plan will usually involve a number of key stages: i. stripping of soils and soil-making materials and either their storage or their direct replacement (ie 'restoration') on another part of the site; ii. storage and replacement of overburden; iii. achieving the landscape and landform objectives for the site, including filling operations if required, following mineral extraction; iv. restoration, including soil placement, relief of compaction and provision of surface features; v. aftercare. These stages are considered further in paragraphs 33 to 74, with detailed guidance on best practice given in Annex A.	
28	Environmental assessment … Whether or not mineral workings would have sufficiently significant environmental effects to warrant an environmental assessment will depend upon such factors as the sensitivity of the location, size, working methods, the proposals for disposing of waste, the nature and extent of processing and ancillary operations, arrangements for transporting products away from the site and proposals for restoration and aftercare of the site. The duration of the proposed workings is also a factor to be taken into account. DOE Circular 15/88 explains the provisions of the Regulations and gives advice on their implementation. Further guidance is given in "Environmental assessment: A guide to the procedures" (DOE 1989).	
29	Whether or not a formal environmental assessment is required, operators are advised to follow the general methodologies for the assessment of environmental effects in all applications. These provide the applicant with the opportunity to demonstrate, and the MPA to evaluate, for example, the practicality of the proposed after-use(s). Where there is doubt as to the practicality of proposals, the operator should discuss alternative solutions using the available information. Advice on undertaking an environmental assessment can be found in "Preparation of environmental statements for planning projects that require environmental assessment: A good practice guide" (DOE 1995); while advice on evaluating environmental statements can be found in "Evaluation of environmental information for planning projects: A good practice guide" (DOE 1994).	Advice.
30	Submission and determination of planning applications Having received an application for planning permission, it is necessary for the MPA to notify or consult other interested parties before reaching a decision. MPG2 provides guidance on the consultation requirements and procedures. Annex B provides guidance on the procedures for consultation with the Ministry of Agriculture, Fisheries and Food (MAFF) or the Forestry Commission in relation to restoration and aftercare for agriculture or forestry use, respectively. MPAs are not required to consult external experts for advice on amenity use; but they may do so in appropriate cases. Further guidance is given in Annex B.	
31	Before granting planning permission and drawing up conditions, mineral planning authorities are advised to consider not only the reclamation and after-use of an individual site but also, where applicable, to relate these to a strategic plan for the area. This will be particularly important where there is a concentration of mineral workings, or where the reclaimed landform will result in a permanent change in the local landscape. Policies and guidance in Minerals Local Plans, Part II of UDPs and other local plans should assist in these considerations.	
32	Applicants may wish to call attention to, and authorities will wish to consider, any evidence as to how the applicant's proposed methods of site management, restoration and aftercare are likely to work out in practice. This might be done by providing evidence about the way a similar site is currently being managed, or how restoration and aftercare have been achieved on a similar site. MPAs should thus have regard to the practicality of the proposal before them. The possibility that reclamation techniques may have improved in the intervening time must also be borne in mind.	
33	Drawing up reclamation conditions *General* Planning permissions normally run with the land and are not usually personal to the developer…	
34	… They will vary according to: i. the characteristics of the individual site; ii. the intended after-use; iii. the type of mineral to be worked; iv. the method of working; v. the timescale of the working; vi. the general character of, and planning policies for the area.	
35	Where possible, it is normally desirable to have 'progressive' or 'rolling' reclamation to minimise the area of land occupied at any one time by the mineral working, unless to do so would be likely to affect adversely the standard of reclamation achieved, or would be impractical having regard to the type of operation and nature of the site. Conditions for progressive reclamation normally limit the area taken for mineral working at any one time and relate it to the rate of restoration of earlier phases of the operation. It is, however, important that conditions permit a sufficient area of land to be stripped of soils in advance of mineral extraction to allow for wet years when soil	

	stripping operations may be impracticable. It is not advisable to specify actual dates in conditions for phasing unless there are overriding reasons to do so.	
36	For short-term workings it is usually appropriate to impose a detailed set of conditions at the time of granting planning permission. For longer-term workings, early agreement on the details of at least the later stages of reclamation may not be appropriate. However, to enable the MPA to assess the appropriateness in landscaping terms of the final restored landform, and to identify opportunities for advance planting of vegetation, it is sensible to have, at least, a general outline of the final landform and intended after-use (see for example paragraph 42). It is recognised that local demands for particular after-uses can vary with time. The review procedures required under the Environment Act 1995 may provide a suitable opportunity to reassess existing after-use proposals. Where a more appropriate after-use is identified, and agreement can be reached between all the relevant parties, there is scope to make appropriate changes to the planning conditions.	
37	For longer-term workings, it is also appropriate to agree at the outset outlines of requirements covering the main stages (e.g. filling, restoration and aftercare), together with detailed schemes for stripping and storage of soil materials. This must be sufficient to clearly demonstrate that the overall objectives of the scheme are practically achievable. Such workings should then normally require the submission of a detailed scheme or schemes for restoration and aftercare, for agreement, by some specific stage towards the end of the life of the permission. Sites where progressive reclamation is to be carried out can require submission of schemes for agreement from time to time as appropriate.	
38	*Soil handling and storage* For after-uses requiring the growth of vegetation, effective reclamation will depend on the appropriate identification and management of soil resources prior to and during work as well as in the later stages of restoration and aftercare. Soil resources in this context are taken to include any medium which is not contaminated and which has a realisable potential to permit plant root growth and to retain and provide water and nutrients. Planning conditions will normally prevent soil resources from being exported from the site. In addition they will usually require the separate stripping, storage (where necessary) and re-spreading in correct sequence of defined thicknesses of topsoil, subsoil, or any other soil-making materials. Some sites may contain considerable variations of soils within them, such as major textural differences, and it may be desirable to require separate stripping (and storage and restoration) of these materials. Such soil variations should have been identified in pre-application site surveys and provided for in the reclamation plan. Further guidance is given in Annex A.	
39	*Landform and landscape* Good site planning, operation and reclamation practice include consideration of the impact of mineral workings and related waste tips upon the landscape. Key objectives will be to minimise the adverse impacts, and to utilise opportunities for positive contributions which a reclaimed site can make to the landscape. Some of these aspects are relevant more especially to the operational phases of a site than to reclamation; but it is appropriate to summarise the principles in this MPG, where they interact with other reclamation considerations.	
41	Preparation of such a landscape strategy will be an interative process, and will guide the contents of the application and suitable planning conditions. Aspects which link operational and reclamation stages include the phasing of extraction and reclamation, their direction and timing, and the use of temporary or permanent screening features.	
42	Landscape and reclamation plans should address the impacts which mineral extraction can have on the existing landscape. These will include the working face and operations at the face, locations of waste tips, and haul roads. Where practical, a key objective may be to avoid breaking the natural skyline from particular viewpoints by the mineral working itself, or by the processing plant or spoil heaps. Coordination of phasing, provision of temporary or permanent screening, and progressive reclamation can together minimise visual impact and the impact on landscape quality.	
44	… Some reclamation schemes may give opportunities to provide new and attractive landscape and landform features.	
45	The final gradients of quarry slopes will affect the total mineral resource which can be extracted; and there may need to be a compromise in the planning decision between maximising the use of the resource and an acceptable landscape 'fit'. For some types of deep quarry, the concept and implementation of a 'reclamation margin' may resolve this. This would require the definition of a sufficient area in all or part of the perimeter of the site, which was beyond the limit of the area permitted for working and which enabled the re-shaping of production faces and/or placement of quarry materials for reclamation purposes only.	
46	Further advice on landform and landscape matters, including reference to recent DOE research on hard rock quarries, is given in the Annexes.	
47	Filling and fill materials *General* The reclamation of surface workings may entail the filling of the voids left by mineral extraction, using waste materials, up to or above the original ground level.	
48	The Town and Country Planning (General Development Procedure) Order 1995 includes a requirement for the local planning authority to consult the Environment Agency before granting permissions for any development involving the use of land for the deposit of refuse or waste. Advice from the Environment Agency should enable MPAs to include any necessary conditions for the protection of groundwater or surface waters when granting planning permissions which include filling of mineral workings. However, where there is unacceptable risk to the environment and mitigation measures are not possible, the Environment Agency may advise against the granting of planning permission for the deposit of such material.	
49	*Backfilling or infilling with mine and quarry wastes* Where extraction and/or processing of the mineral results in generation of solid mine and quarry wastes or large amounts of overburden, both operational requirements and good reclamation are normally served by requiring progressive backfilling of the wastes and overburden prior to restoration of soils. Workings where relatively thin seams of economic minerals of sedimentary origin occur within geological sequences with a high waste ratio, and where backfilling is routinely practised, include opencast coal	

	and gypsum. However, some types of infilling, such as high moisture slurries within tailings dams and lagoons, can present particular technical difficulties for reclamation. Further details are given in Annex C.	
51	*Infilling with controlled wastes* Approximately 70% of controlled waste produced in the UK is finally disposed of to landfill sites. The vast majority of this waste is landfilled into current or former mineral voids. In many cases this interaction has been, and may continue to be, beneficial both in finding an acceptable location for the disposal of the waste and to achieve the reclamation of the mineral working. However, the choice to integrate the two activities should be a deliberate and conscious one, which takes account of the joint impact of the extraction and landfill on the site and surrounding area. Successful reclamation of a mineral site does not automatically imply a preference for reinstatement to former original contours and ground levels.	
52	Any proposal for mineral working which includes infilling the mineral void with controlled wastes requires a waste management licence under Part II of the EPA 1990 as well as planning permission. An important difference between the two is that planning permission normally runs with the land whilst the waste management licence is granted to a specific licence holder.	
53	Guidance on the interaction between the two systems of control, and the extent to which the amended EC Framework Directive on Waste (75/442/EEC as amended by 91/156/EEC and 91/692/EEC) places obligations on planning authorities, is contained in PPG23. Chapter 5 and Annex 11 of PPG23 , (Adobe Acrobat 145kb) in particular, contain guidance on landfilling of controlled wastes which are of relevance to the reclamation of landfilled mineral workings and the scope of planning conditions. Additional technical guidance is to be published in the updated Waste Management Paper No. 26 - WMP26E "Landfill restoration and post closure management". Further guidance is also given in Annex A of this MPG.	
54	The controls on the surrender of waste management licences under the EPA 1990, introduced under the Waste Management Licensing Regulations 1994, mean that the Environment Agency may not accept the surrender of a licence unless it is satisfied that the condition of the land is unlikely to cause pollution of the environment or harm to human health. Therefore, the pollution controls over a particular landfill site will remain in force long after the restoration and aftercare required under the planning permission will have been completed and the after-use of the site commenced. In such circumstances, if the pollution control monitoring and remedial activities affect such land, there may need to be provision to remedy any damage, either through amendments to the waste management licence, which will still be in force, or in the case of a new planning permission, through a planning obligation or other agreement. The option of remedial action under the waste management licence is likely to be preferable.	
55	Restoration The objective of restoration conditions is to secure the replacement of soil materials on landforms and levels which accord with the planning requirements, in ways that ensure that land is brought back to the standard required for the proposed after-use(s). This usually involves replacement of topsoil, subsoil and soil making materials in correct sequence on worked and suitably contoured land, in such a way as to minimise damage to soil structure and to other characteristics important for the growth of plants. If soils are damaged or lost during stripping, storage or restoration it can significantly affect the quality of the final restoration, even following five years of aftercare treatments. Guidance on soil handling, storage and replacement techniques is provided in Annex A… … In some cases it may be appropriate not to replace soil across the whole site, particularly where some forms of nature conservation requiring nutrient poor substrates are intended. Guidance on the requirements for nature conservation after-uses is given in Annex B.	
56	Aftercare *General* Schedule 5 to the 1990 Act provides powers to enable MPAs to impose `aftercare conditions' on the grant of planning permission in relation to land which is to be used for agriculture, forestry or amenity following mineral working.	
57	The need for aftercare conditions stems from the recognition that land which is to be fully reclaimed needs not only the replacement of the topsoil and subsoil or other soil making materials (through restoration conditions), it also needs to be cultivated and given treatment for a number of years after the initial restoration has been carried out in order to improve the structure and stability of the soil, and to bring it to a satisfactory standard. It also provides an opportunity to establish the site infra-structure such as drainage, and the initial establishment and management of vegetation. The ultimate aim behind the concept of aftercare is that, over time, the land will be brought to a standard whereby it does not have to be treated differently from undisturbed land.	
58	*Limitation on the imposition of aftercare* There are several limitations on the imposition of aftercare conditions. These are:- i. Aftercare conditions may only be imposed on permissions in conjunction with a restoration condition (Schedule 5, paragraph 2(1)). ii. The conditions only apply where land used for mineral working or landfilling is being reclaimed for use for agriculture, forestry or amenity (Schedule 5, paragraph 2(2)). iii. An aftercare condition can require only the treating of the land - such as planting, cultivating, fertilising, watering, draining or other steps for treating the land (Schedule 5, paragraph 2(5)). It cannot deal with such matters as the erection, construction or maintenance of fencing, gates, paths, etc.(However, these may be dealt with under other conditions). iv. Aftercare begins from compliance with the restoration condition and an operator cannot be asked to complete steps which will stretch beyond five years from that point. However, aftercare may be extended by mutual consent where this will enable reclamation objectives to be met. In the case of progressive restoration the aftercare period will begin from compliance with the restoration condition in respect of the relevant part of the site. Mineral operators may therefore reasonably request MPAs to provide	

	written confirmation that restoration conditions have been complied with. This maximum aftercare period of five years can be varied by the Secretary of State by regulations and may therefore be reviewed in the light of experience (Schedule 5, paragraph 2(6-8)).	
59	*Aftercare consultations and responsibilities* Before imposing an aftercare condition, the MPAs are required to consult the appropriate Agriculture Minister (through the regional Land Use Planning Units of MAFF) where they propose that the land should be used for agriculture, and to consult the Forestry Commission where they propose that it should be used for forestry. MAFF or the Forestry Commission will advise on whether the proposed use is appropriate, whether aftercare steps should be specified in the condition or the preparation of an aftercare scheme (for approval by the MPA) should be required, and what steps would be appropriate (Schedule 5 paragraphs 4(1) to (3)).	
60	Consultation with MAFF or the Forestry Commission is also required before an aftercare scheme for agriculture or forestry is approved. While aftercare is being carried out, the MPA may consult MAFF or the Forestry Commission as to whether the steps are being completed satisfactorily (Schedule 5, paragraph 4(4)). The MPA is not obliged to consult outside expert opinion on aftercare for amenity use at any stage, although in most cases they would probably wish to do so. Where sites are within Sites of Special Scientific Interest (SSSIs), there is a statutory obligation to do so. Sources include the Forestry Authority, the Arboricultural Advisory and Information Service (AAIS), and the National Urban Forestry Unit, where trees are to be planted; English Nature, the Wildlife Trusts Partnership, the Royal Society for the Protection of Birds (RSPB), the Game Conservancy, and the Wildfowl and Wetlands Trust, where nature conservation is relevant, and the Regional Councils for Sport and Recreation. The Environment Agency is also willing to provide advice where recreational and nature conservation after-uses are proposed.	
62	*Form of aftercare conditions* 62 Aftercare conditions can be imposed in one of two forms (Schedule 5, paragraph 2(3)):- i. an aftercare condition imposed at the time of granting of planning permission, specifying the steps to be taken, or ii. a condition which requires an aftercare scheme to be submitted by the mineral operator or other appropriate person for approval (after modification if necessary) by the MPA.	
63	*Standards of aftercare* Aftercare can only be used to bring the land to a required standard which is defined in general terms according to the intended after-use. Where restoration to agriculture is carried out in accordance with Schedule 5, paragraph 3(1), then a statement will have been prepared describing the physical characteristics of the land when it was last used for agriculture. Here, so far as it is reasonably practicable to do so, the objective is to restore land to its original quality. This is a more precise requirement than for other circumstances, where the land must be returned to a standard where it is fit for the use specified in the aftercare conditions (Schedule 5, paragraphs 3(2) to (4)). The latter standard is acceptable, for example, in situations where poor quality land is involved or where a site contains previously despoiled or derelict land. In these circumstances, it is appropriate to define measurable performance criteria or checklists. These could cover, for example, the thickness of topsoil, subsoil, other soil materials; soil texture; stoniness; water holding capacity; degree of compaction (bulk density).	
64	To ensure that standards are translated into site specific objectives, it is desirable to achieve close co-operation between those carrying out aftercare, those providing expert advice and the MPA who may need to re-assess the aftercare programme annually. Further guidance is given in Annex B. This approach should provide a flexible framework against which conditions could be tailored to meet specific requirements while ensuring adequate standards of restoration. Guidance on the standards required for forestry and amenity after-uses are given in Forestry Commission Bulletin 110 "Reclaiming disturbed land for forestry", and in the report "Amenity reclamation of mineral workings" respectively.	
65	*Extension of the aftercare period* Aftercare conditions are now a normal requirement for relevant mineral planning permissions, and it is usual for them to last for the current maximum period of five years. Experience since the introduction of aftercare powers for new permissions in 1982 suggests that for many circumstances the present five year maximum is adequate.	
66	In some limited circumstances it may be appropriate to extend the period of recuperative management of all or part of a site. Examples may include sites which have experienced problems in the establishment of forestry or amenity woodland; and some schemes intended to establish nature conservation after-uses or where aftercare was effectively 'on hold' due to the need to wait for adjoining land to be restored e.g. where drainage installation is required.	
67	In some cases it may be appropriate for the MPA to seek a planning obligation to extend the aftercare period, in other cases it may be sufficient for whoever has responsibility for the land in the long-term to treat it with additional care.	
68	*Right of appeal against aftercare conditions* As with all planning conditions, there is a right of appeal to the Secretary of State against the imposition of aftercare conditions and against any enforcement notice issued requiring compliance with a condition, (section 78(1) of the 1990 Act).	
69	*Aftercare compliance certificates* MPAs are required to issue, on request from any person with an interest in the land, certificates confirming that aftercare steps have been complied with - providing they are so satisfied (Schedule 5, paragraph (5)). Such a certificate only confirms that the aftercare condition has been complied with and it does not automatically mean that the standards set out in Schedule 5, paragraphs 3(1) to (4) have been attained.	
70	*Financial responsibility for aftercare* The 1990 Act provides for the person last using the land for the winning and working of minerals to be financially responsible for aftercare of the land unless an alternative	

	legally binding agreement with another party has been made (Schedule 5, paragraph 6)…	
71	Additional points and guidance on aftercare for agriculture, forestry or amenity use are given in Annex B.	
72	*Aftercare and agricultural set-aside* Under the Arable Area Payment Scheme (AAPS) farmers can claim area payments on cereals, oilseeds and protein crops. However, in order to qualify for these payments, all but the smallest producers have to set-aside a proportion of their arable land. Farmers are required to manage their set-aside land and to maintain it in good agricultural condition, so that it can be brought back into agricultural production, if necessary.	
73	Although there is no objection, in principle, to aftercare land being set-aside; mineral operators and farmers are reminded that set-aside management conditions do not provide exemption from aftercare obligations. In addition, positive management may require the establishment of a cover crop, e.g. grass.	
74	… Otherwise any subsequent enforcement of planning conditions may cause land to be withdrawn from set-aside. This could lead to the imposition of penalties. Farmers considering setting aside aftercare land are strongly advised to consult with their MAFF Regional Service Centre on the eligibility of the land before submitting their IACS application.	
75	Planning obligations Section 12(1) of the 1991 Act substituted a new section 106, and section 106A and 106B into the 1990 Act. These enable a planning obligation to be entered into by means of a unilateral undertaking by a developer as well as by an agreement between a developer and a local planning authority. Sections 106A and 106B deal with the modification and discharge of planning obligations and appeals. General advice on the use of planning obligations is given in DOE circular 16/91. Advice on the modification and discharge of planning obligations is given in DOE Circular 28/92. However, special considerations apply to the use of planning obligations and the imposition of conditions in connection with mineral development. Planning obligations may either be sought by an authority as a means of making development acceptable in planning terms, or they may be offered by a developer.	
76	Use is made of planning obligations in mineral planning to deal with issues which cannot adequately be controlled by planning conditions. Examples of situations where planning obligations may be appropriate include: i. Retention of the after-use: to guarantee that the proposed after-use will be implemented or maintained into the longer-term. ii. Long-term maintenance and management: for land to be returned successfully to beneficial use, it is important that it is managed in the long term (ie beyond the statutory five year aftercare period). For some after-uses such as nature conservation, which may not generate sufficient funds to be self-sufficient, it may be appropriate to seek a planning obligation between the owner or operator and the MPA to secure such funding. iii. Maintenance of water levels: some nature conservation sites may require regular flooding to maintain certain habitats, whereas drainage and pumping may be required for other uses such as sports pitches to prevent flooding in winter, and land reclaimed at low level for agriculture (see Annex A). iv. Provision of facilities for sport, recreation, nature conservation and other amenity uses…	
77	As an aftercare condition can only be imposed where there is a restoration condition (see paragraph 58), there are certain circumstances, where it is not possible to impose an aftercare condition, even though there are management requirements, for example water areas formed as part of a reclamation scheme. In these circumstances a planning obligation may be an appropriate method of allowing for initial management of both the water area and surrounding land. A similar problem may be encountered with quarry faces, where it is not clear whether they will be treated with soil or soil making materials.	
78	New or improved reclamation conditions for existing permissions and workings, including interim development orders and old mineral permissions Because of the long duration of some mineral workings, there have been, and will continue to be, major changes during the life of the permissions in working methods, in techniques available for landscaping and reclamation, and in the public's perception of environmental acceptability. Planning conditions on older mineral permissions intended to control the environmental effects of mineral working and to ensure adequate reclamation have been extensively reformed in recent years by the Planning and Compensation Act 1991 and the Environment Act 1995.	
79	The Planning and Compensation Act 1991 Act dealt with the problems of Interim Development Order (IDO) permissions (i.e. those granted between 1943 and 1948). It required holders of such permissions to apply to the MPA for registration of the permission and subsequently to apply for determination of the conditions to which the permission is to be subject, if they wished the permission to continue to have effect. Guidance on implementing restoration and aftercare conditions on IDOs is given in MPG 9 (paragraphs 29 to 36).	
80	The Environment Act 1995 (section 96 and Schedules 13 & 14) provides for an initial review and updating of all old mineral planning permissions granted between 30 June 1948 and 22 February 1982, and the periodic review of all mineral planning permissions thereafter. These provisions will enable the permissions to reflect changing environmental standards and ensure the conditions do not become outdated. They apply to permissions involving the depositing of mineral waste as well as to permissions for development consisting of the winning and working of minerals. Where the depositing of mineral waste (or the winning and working of minerals) is carried out under planning permissions granted under a Development Order, the Environment Act provides an enabling power to make similar provision for initial and periodic reviews within the Development Order itself. The Government intends to bring forward suitable amendments to the 1995 Order in due course.	
81	Guidance on implementing this new legislation is contained in MPG 14 "Environment Act 1995: Review of mineral planning permissions". The basic procedure for the initial reviews, whereby mineral operators or owners must submit new schemes of conditions for approval of MPAs by a specified date, follow those for IDO sites.	
83	The guidance on planning conditions for site reclamation in this MPG and in the Department's research reports should be of assistance to minerals operators or owners in	

	preparing new schemes of conditions and to MPAs in determining such schemes, as well as in considering making any formal Orders. A list of the key factors that should be addressed when preparing and considering proposals for restoration, and where appropriate, aftercare conditions is given in paragraph 35 of MPG9 , and paragraph 116 of MPG 14.	
84	A further power in relation to planning conditions is contained in section 73 of the 1990 Act. This section provides that in the case of land with an extant planning permission granted subject to conditions, an applicant may apply to the local planning authority for a new planning permission to develop land without complying with conditions previously imposed. The power is explained in paragraph 13 of the Annex to DOE Circular 19/86 and paragraph 4 of DOE Circular 11/95.	
85	Removal of buildings, plant and machinery It is usually desirable to require that buildings, plant and machinery needed in connection with mineral working are removed as soon as they are no longer required in connection with the relevant planning permission. The areas concerned may then be incorporated in schemes for restoration and aftercare. Further advice on the retention and removal of buildings, plant and machinery is contained in MPG2.	
86	Financial provision for reclamation … Guidance on this matter in relation to the use of conditions in planning permissions is in DOE Circular 11/95 …	
87	The Department published a report in 1993,"Review of the effectiveness of restoration conditions for mineral workings and the need for bonds". This was part of the Government's commitment, in response to the finding of the Stevens Committee, to keep under review the effectiveness of restoration conditions applying to minerals planning permissions. The study examined whether additional measures such as financial guarantees or restoration bonds could achieve better or more rapid restoration results in practice. The study did not recommend that a new scheme of guarantees or bonds should be introduced, but it did identify a number of problems which needed to be addressed.	
88	It was found that most sites where working had been completed had been satisfactorily restored. The largest groups of problems related to sites which lacked modern conditions for reclamation, and sites where technical failures had resulted in unsatisfactory reclamation standards. Only a small proportion of failures resulted from financial failures. The lack of modern conditions has since been addressed through the requirements relating to IDO permissions introduced in the 1991 Act and through the new provisions in the Environment Act 1995 for the reviews of old mineral permissions. Continued improvements by the industry in their technical practices will ensure continued improvements in standards of restoration. The increasing use of progressive restoration, which limits the area of disturbed land at any one time, should also greatly reduce the potential environmental damage left by any failure to restore.	
89	Experience so far with voluntary agreements, and with Local Acts in South Wales, suggests that securities have only been called in a few cases of financial failure, because of the difficulty of proving to the satisfaction of the Courts that technical failure had occurred.	
90	Consequently the Government does not intend to introduce new provisions to enable financial guarantees or bonds to be required under the planning system, for either financial or technical default on restoration.	
92	Annex D contains more details on possible assessments of options for demonstrating to MPA's the future funding for restoration. These options may include mutual funding schemes within industry sectors, such as that set up by the Sand and Gravel Association.	
97	Monitoring and enforcement of restoration, aftercare and related site operations This MPG has set out guidance on the importance of accurate and relevant planning conditions, and planning obligations under section 106 of the 1990 Act, to achieve successful reclamation of mineral sites. However such conditions will be of little practical effect unless they are properly implemented by the mineral operator, and unless the MPA has an effective system for monitoring the activities on a regular basis and for taking enforcement action if this is necessary. It is recognised that neither mineral companies nor MPA's have unlimited resources. The objective should be for all relevant parties to have in place adequate systems, including quality controls and staff with appropriate training and skills, to achieve their parts in securing successful site reclamation in the most cost-effective manner.	
98	There are a number of key stages and operations which critically affect the success of reclamation, such as soil stripping and avoiding loss in storage; creating final landforms including materials balance, slopes, levels, and any water areas; restoration of soils; and aftercare management including drainage and management of vegetation…	
99	It is recommended that mineral operators provide MPAs with an annual report on each of their sites, which indicates how they have monitored and complied with specific planning conditions. For new sites such a requirement could be included as a planning condition, providing that the actual conditions to be monitored and reported on are sufficiently precise and identified. However, monitoring reports should not be seen as an alternative to proper and objective monitoring of compliance by the MPA.	
101	The Department has published a report from research "Guidance on good practice for reclamation of mineral workings to agriculture", which sets out guidelines for mineral operators and planning authorities for planning, controlling and monitoring site activities. It includes suggested checklists to support the guidance. Whilst this report is concerned with restoration of sites to agriculture, many of the principles accord with recommendations in other recent reports for sites restored to amenity uses and forestry. Further details are given in Annex A and Annex B.	
102	New and substantially improved powers for local authorities to enforce planning controls were introduced into the 1990 Act by sections 1 to 11 of the 1991 Act. Advice on these new powers is given in DOE Circular 21/91 and in PPG18. The advice does recognise that unauthorised activities on mineral workings can cause particular problems, and that there may be a need to stop such activities immediately (eg DOE Circular 21/91, Annex 2 paragraph 38; and PPG18 , paragraphs 19-21). The advice supports the need for monitoring by local authorities, since PPG18 says "It is clearly preferable for effective liaison and contracts between MPA's and minerals operators	

	to be sufficiently good for contraventions of planning conditions to be avoided...".	
103	Review and monitoring The Department proposes to review the advice contained in this Guidance Note periodically. This will ensure that it remains up to date and continues to be a useful guide to mineral operators, MPAs and others involved in minerals planning and accurately reflects the views of the Secretary of State.	
104	Cancellation DOE Circular 25/85 is hereby cancelled.	
Annex A	**Annex A : Planning and implementing reclamation schemes** Introduction A1 There is clear evidence that the technical knowledge now exists to enable most land worked for minerals to be reclaimed to a high standard. However, to achieve this requires commitment from all parties involved in the planning and implementation of site working and reclamation. A2 Restoration and aftercare should be seen as an integral part of the working of the site. The protection, for example, of the soil resource at all stages during the life of the site is of paramount importance to the success of reclamation, as is the need to work towards a final landform (with or without the use of fill), which is in keeping with the natural character of the area, and suitable for the intended after-use of the site. A3 The aim of this Annex is to provide guidance on the general principles of planning and implementing a reclamation scheme. Consideration is given to specific requirements for reclamation to agriculture, forestry and amenity uses in Annex B. For aftercare procedures reference should be made to paragraphs 56 to 74 in the main text. Preparation of a reclamation scheme A4 A formal reclamation scheme should accompany the planning application for the mineral working. It should indicate how the restoration and aftercare of the site is to be integrated with the working scheme, and should demonstrate the suitability of the proposals of the proposed after-use. A5 Before designing a reclamation scheme, the operator should undertake a comprehensive site survey to identify any existing features on the site that may be incorporated into the reclamation scheme, together with a survey of the soil resource and site hydrology. Consideration should also be given to the potential impacts of the reclamation proposals on adjacent land. A6 It is becoming common practice for the operator to discuss working and reclamation proposals with the MPA and where appropriate the statutory consultees before submitting the planning application. This provides an opportunity for the parties to discuss and agree the information which needs to be provided by the applicant when submitting the planning application, and should promote early consideration of the reclamation proposals including the acceptability of the proposed after-use. The actual information needed will be site specific, however, a general guide to the type of information relevant to site reclamation is summarised in Box 2. A more general checklist of information required at the planning application stage is given in MPG2 and in the Department's advisory standard application form. Imposition of reclamation conditions A7 Reclamation usually involves a number of key stages as indicated in the main text (paragraph 27). These stages need to be translated into planning conditions. Box 3 provides a breakdown of these stages, indicating the key topics that may need to covered by reclamation conditions. These are considered in more detail below. Landform and landscape *Introduction* A8 It is of fundamental importance for effective reclamation that the intended final landform, gradients and drainage of a site are well-designed and specified at the outset, with controls in planning conditions as appropriate. Table 1 gives some guidance on slopes of land in relation to use. More detailed guidance on the landform requirements for the wide range of amenity uses is given in "Amenity reclamation of mineral workings". A9 Final landforms should be the best available compromise between forms which are: i. suitable for the intended after-use; ii. generally compatible in nature and scale with the natural landform of the area; and iii. not liable to slope instability or other ground movement. Filling of mineral voids *General* A10 Paragraphs 47 to 54 in the main text outlined the general principles and legislative controls involved in filling sites with mine and quarry wastes and with controlled wastes. The following sections provide further advice on the planning considerations relevant to drawing up appropriate planning conditions. *Box 2* *Information Which A Mineral Operator Might Provide To MPAS In Support Of A Planning Application To Assist Both The Authority, And Statutory Authorities Advising IT* *The list of items should be treated as useful guidance for mineral operators; and on individual cases should take account of the information requirements which may have*	

	emerged during pre-appication discussions between the parties. *1. A copy of the relevant planning application and Section 66 and 67 certificates.* *2. An Ordnance Survey plan of the area at 1:2,500 indicating:-* *2.1 The outer boundaries of the area to be excavated;* *2.2 The outer boundaries of the total site so that the areas allocated for topsoil, subsoil, soil making material and overburden storage can be seen; and* *2.3 Details of any existing topsoil or subsoil heaps that may be used in the restoration, including position, types and quantities available.* *3. Details of the type and depth of proposed workings and volumes of material to be removed. If the mineral operator has drilled the site during routine site evaluation then any data obtained should be offered, especially with relation to watertable level, soil-making materials which would be useful in the restoration scheme and should not be removed from the site, and depth and nature of topsoils, subsoils and overburden.* *4. A strategic plan of the type of reclamation proposed including:-* *4.1 Projected plan of contours and final levels of site, together with information about replacement depths for soil-making materials, subsoil and topsoil in the form of target restoration profiles;* *4.2 Areas to be restored to agriculture, foresty and amenity uses or for built development;* *4.3 The phasing and time-scale of the working, restoration and aftercare;* *4.4 The methods of filling where appropriate, types of fill and materials proposed (eg controled wastes, mine and quarry wastes etc);* *4.5 The methods of stripping, transporting and restoring soils; including, where appropriate, schemes for retrieving and utilising soil making materials, dealing with different soil types and machine movement;* *4.6 Proposed outfalls for drainage of the restored land;* *4.7 Proposed access roads to restored land.* *4.8 For sites taking controlled waste, details of proposed pollution control measures.* *5. Any air or ground photographic evidence that might be available for the area (this is not essential but might be helpful if available).* *6. Details of existing land uses/land cover ie for agriculture (grass, crops etc), foresty (broadleaves, conifers, mixed etc); areas of nature conservation importance/amenity (where appropriate, baseline ecological survey covering vegetation, animals and habitat types etc.)* *7. Details of the overall drainage characteristics of the site, including the existence of any known field drainage system, and the positions of main outfall ditches and watercourses.* *8. If any resoration is likely to take place within 12 months of the commencement of working, then full details of the proposed aftercare should be submitted.* *9. Where restoration will not take place for several years, the operator should submit a summary of the principal items which he proposes to include in an aftercare scheme, to be agreed at a later date.* *10. Details of proposals for nature conservation enhancement, indicating how they fit with local nature conservation strategies and the biodiversity action plan.*	

Note:

Where mineral operators provide detailed information on a site's physical conditions in respect of agricultural land, MAFF are prepared to utilize such data in the preparation of the statement of physical characteristics subject to satisfactory validation. To be of value to MAFF auger boring data should be collected on a grid basis at an appropriate sampling density for the site. At each grid intersection information is required down to 1.2 metres depth on soil texture, colour, gleying and abundance and size of surface stones. Supplementary representative soil profile pits should also be dug to provide information for each mapping unit on soil structure, depth to slowly permeable layers and abundance and size of subsoil stomes, also down to 1.2 metres.

Box 3

Key Topics To Be Considered When Drawing-Up Reclamation Conditions

Soil stripping	Timing/condition of the soil Machinery used/routing of vehicles Separation of different soil types/horizons
Soil and overburden storage	Separation of different soil types/horizons; overburden storage Location of storage mounds, height, shape Methods of construction; including environmental safeguards for noise suppression Maintenance requirements (seeding, mowing etc.)
Landform for after-use	Contouring of excavated area and of permanent mineral waste tips Placement of fill or overburden - sequence, phasing, method, order, depth; environmental safeguards Final levels/gradients
Restoration	Soil placement - methods, order, thickness of topsoil, subsoil or soil making materials Timing and methods of placement Routing of vehicles during soil placement: (as for storage - environmental safeguards) Relief of compaction For controlled landfills, installation of gas and leachate control systems (spacing, location, compatibility with reclamation objectives, including vegetation establishment and management) Drainage outfalls
Provision of surface features	Ditches and drainage work Erection of fences Creation of attenuation ponds etc. for water management
Aftercare	Planting or seeding, cultivating, fertilising, tree and hedge planting, watering, drainage Secondary treatments

A11 In some cases it may be appropriate to only partially fill a site to create landforms which are appropriate for the intended after-use, or to conserve features of biological or geological interest existing on the site. In the latter case, the interest may only become apparent once extraction has commenced, and there may be need for some flexibility in implementing the final reclamation scheme (see the section on landform in the main text - paragraphs 39 to 46). Geological interests may require rock faces to be conserved. However these may be subject to falls of rock, with consequential public safety implications. However, there are a number of technical solutions available which may greatly reduce the risk to public safety. It may be possible to conserve small sections of a face which, together, cover a whole succession. This may sometimes be preferable in safety and access terms to conserving high faces. Further guidance is available in "The reclamation of damaged land for nature conservation"

and "Earth science conservation in Great Britain, a strategy".

Mine and quarry waste

A12 Requirements for the use of mine and quarry wastes as fill materials (overburden, waste rock etc) will be controlled by planning conditions. The main considerations will be:-

i. the bulking and settlement characteristics of the fill and the influence these may have on the intended after-use of the site;
ii. any particular physical or chemical properties of the fill which could adversely affect groundwater or would have potential to affect, adversely or beneficially, plant growth following restoration.

Table 1. Slopes of land in relation to use

Fraction	Gradient %	Degrees (to horizontal)	Significance for land use
1 in 1	100	45	
1 in 2	50	27	Maximum for downhill use of most forestry machinery (Rowan, Forestry Commission (F.C.) 1977).
		25	Maximum for pasture land to avoid soil creep and formation of paths by animals across slopes (Soil survey of England and Wales 1969).
1 in 3		18	Maximum for Grade 4 agricultural land (MAFF 1988). Limit for 2-wheel drive tractors with fully mounted equipment. Maximum for uphill use of most forestry machinery (F.C. 1977).
1 in 4	25	14	Mean recommended incline for artificial ski slopes (English Ski Council).
1 in 5	20	11	Maximum for Grade 3b agricultural land (MAFF 1988). Limit for most machinery used in cereal and grass production including combine harvesters and 2-wheel drive tractors with trailed equipment. Maximum slope for 2-way ploughing.
1 in 8		7	Maximum for Grades 1,2 and 3a agricultural land (MAFF 1988). Suitable for most agricultural machinery but the limit for precision seeding and harvesting equipment.
1 in 10	10	6	Maximum general longitudinal gradient for forest roads.(F.C.).
1 in 25			Minimum settled gradient for the restored profile of landfill sites accepting biodegradable waste.
1 in 40	2	1°25'	Optimum gradient for drainage channels (MAFF).
			Maximum lateral slope for playing fields (Nat. Playing Fields Assn, NPFA, 1963).
1 in 60	1	0°57'	Recommended gradient for winter games 1 in 60-1 in 80 (NPFA). Recommended minimum gradient for restored profile of inert landfill (MAFF).
1 in 80		0°43'	Minimum desirable cross fall for cricket pitches (NPFA, 1963).
1 in 200		0°23'	Minimum practical gradient for piped land drainage (DES 1966).[Note: on reclaimed land and filled land, differential settlement may cause problems on such shallow slopes.]

Notes

1 For agriculture and forestry these are general guidelines which take account of safety. For agriculture the degree of limitation is also influenced by slope form in relation to field boundaries.

2 A geotechnical analysis of proposed slopes should be undertaken, based on information on the behavioural characteristics of the natural and/or emplaced materials found at each site.

A13 Both operational requirements and good reclamation are often served by requiring progressive backfilling of wastes approximately in correct stratigraphical sequence prior to restoration of soils.
A14 The needs and opportunities for greater or lesser compaction of the fill will vary with the methods of working and the intended after-use. Stability considerations and the degree of compaction will obviously be more critical if it is intended to build on a reclaimed site.
A15 The pre-application survey may have identified particular horizons of waste rock or overburden which could benefit plant growth on the reclaimed site if specifically reserved for use as the uppermost layer of fill before replacement of the subsoil in order to increase the total 'soil' depth, or as a replacement for unsuitable subsoil. Such a requirement could be included in the agreed scheme of working, although it will be important to consider both the increased costs to the operator of complying with the requirements as well as the overall benefit to be gained in terms of plant growth and any likely reduction in the costs of aftercare. In contrast it may be necessary to avoid the placement of certain types of wastes immediately below the soil layers - e.g. large rocks which would interfere with normal agricultural drainage or cultivation operations, or materials with particularly hostile chemical properties.
A16 Where mineral voids are filled with mine and quarry wastes brought in from elsewhere, similar considerations to the above will apply. However, the mineral operator may have less direct control over the timing and availability of fill material.
Controlled wastes
A17 Where it is planned from the outset that a surface mineral working is to be reclaimed by landfilling with controlled wastes, it is vital that the landfilling engineering requirements are integrated with the requirements and objectives for restoration, aftercare and after-use of the site. There have been a number of significant changes in landfilling since Waste Management Paper 26,"Landfilling wastes" was first published in 1986 and since the original version of MPG7 was issued in 1989. The changes of most relevance for mineral and landfill operators and for MPAs and the Environment Agency, include:

i. the legislative framework for planning control and, especially, waste management licensing, has been extensively revised;
ii. new technologies have been developed for landfill construction and capping, control over landfill gas migration and extraction, and leachate management and treatment, and these are likely to affect the timing and techniques for landfill reclamation - especially for those sites taking biodegradable wastes;
iii. the results of research into accelerated stabilisation of biodegradable wastes, into assessment of stability and estimation of settlement, and into the processes and products of biodegradation, have a direct effect on the design and practice of landfill reclamation;
iv. further experience has been gained, and improvements made, in the standards of restoration and aftercare for landfill sites, which are encouraging a wider range of after-uses to be considered on restored landfill sites; in addition, recent and continuing research into the potential for tree planting on landfill sites has shown that the guidance in WMP26 on this topic was overly restrictive.

A18 Many landfilled workings will remain in operation over several years, if not decades. It is, therefore, important that there is interaction between all the parties concerned with the design and planning of site operations and their implementation, and that this is seen as a continuing process. The requirements in the Environment Act for periodic reviews of all mineral workings should assist the practical interface between the separate planning and licensing control systems.
A19 The planning conditions may need to allow for "interim restoration" for a limited period, for sites where significant settlement is anticipated, or on parts of sites where remedial works to environmental protection measures (gas and leachate systems) will be required. This will usually entail replacement of part of the soil profile (eg subsoil only) and establishment of a temporary grass sward. The duration of such "interim restoration" should be kept to a minimum but the actual duration will need to be site specific; and it should then be followed by completion of restoration of the full soil profile, and aftercare appropriate for the after-use.
A20 More detailed technical guidance, which is relevant for planning as well as licensing controls, is given in Annex 11 of PPG23 and especially in WMP26E "Landfill reclamation and post closure management"[in preparation].
Reclamation of workings which do not involve fill
A21 Effective reclamation of surface mineral workings does not necessarily require filling of the voids with solid materials. For example, there are many possible beneficial after-uses for water-filled voids in areas with a high natural water table. In areas where the base of the excavation is above the level of the water table, planning conditions can require shaping of the excavated area to agreed contours and gradients prior to restoration and, often, aftercare for agriculture, forestry or amenity use.
Low level restoration in areas with a high water table
A22 In areas with a high natural water table, one possible option for determining a planning application for mineral working is to permit extraction, leaving the restored level of the site below the water table but requiring the site to be adequately drained by pumping on a continuing basis. This has become known as 'low level restoration'. It may also be a relevant option for mineral deposits such as clays where there is no true 'water table' but where there will be a continuing need to dispose of surplus water resulting from direct precipitation. The situations in which low level restoration has generally been implemented or proposed have been in parts of East Anglia and the East Midlands where sand and gravel deposits underlie high quality agricultural land with a high water table, and where for policy reasons it is desirable to restore sites to agricultural use, but where lack of suitable fill materials and other factors preclude restoration of worked sites to original levels. In such circumstances the acceptable release of the land for mineral working may depend on restoring the worked area to agriculture at the lower level, with continuing pumping.
A23 Such restoration proposals raise particular legal and technical issues which need to be satisfied if permission is to be given. The main legal problem concerns the imposition and enforceability of longer-term or 'perpetual' pumping conditions. It is possible that a condition which would require the mineral operator and, once he had

left the site, the landowner, to pump the site in perpetuity or for an unspecified period would be considered to be unreasonable or even ultra vires, because it would impose an unlimited obligation on the landowner.
A24 The use of a planning agreement under section 106 of the 1990 Act (as substituted by section 12(1) of the 1991 Act) may present a practical solution to this type of case. Section 106(1) provides that a local planning authority may enter into an agreement with anyone with an interest in the land for the purpose of restricting or regulating the development or use of the land. DOE Circular 16/91 provides guidance on the provisions for making planning obligations and on the use to be made of them. DOE Circular 28/92 describes the procedures for modification and discharge of planning obligations and the related Regulations.
A25 The technical requirements for low level restoration of sand and gravel workings, and the original DOE Circular providing guidance on the legal aspects (DOE Circular 25/85) have been reviewed in a DOE research project. The resulting report "Low level restoration of sand and gravel workings" has been published by HMSO. The report includes recommendations for best technical practices for low level sites and guidance on the scope of information which should be provided with planning applications involving this type of restoration. On the legal aspects, the report concluded that voluntary agreements (i.e. planning obligations) to complement normal planning conditions can be made, which will secure the enforceability of covenants to safeguard the restored land. However, the introduction of legal provisions relating to planning obligations (see paragraph A24 above), has widened the scope for such agreements and overtaken some of the detailed legal comments made in the report.
A26 The technical guidance in the HMSO report should be taken into account in preparing and determining any relevant planning applications. A summary of key items is in Box 4. Additionally applicants and MPAs will need to take account of the advice of the Environment Agency on the potential effects of proposals on groundwater, where low level restoration will permanently reduce the thickness of the unsaturated zone of an aquifer. The powers and duties of Land Drainage Authorities under the Land Drainage Act 1991 and Water Resources Act 1991 will also need to be considered. English Nature should be consulted where water draw-down or suspended solids within the pumped water would have a potential to impact on adjacent wetland habitats.
A27 The terms of a planning obligation are a matter for negotiation between the parties and must reflect the particular circumstances of each individual case. However, it is likely that most obligations related to this type of restoration will:
i. require the mineral operator to execute the works necessary to restore the land and install the necessary drainage and pumping equipment;
ii. refer to the detailed technical specification for the proposals, a copy of which should be appended to the obligation;
iii. require the mineral operator to carry out the works specified; and
iv. make suitable financial provision for the necessary works.

It is possible to cover points i. to iii. using planning conditions. Financial provision and longer-term management and maintenance of the system are likely to require a planning obligation.

Box 4

Summary Of Items For Best Technical Practice For Preparing Low Level Restoration Proposals

1. Site without a groundwater barrier

- Will continuing local drawdown of the water table be acceptable? if "yes":

- Undertake detailed hydrogeological investigation of predicted drawdown effects;

- design of water balance facility;

- design of pumping systems;

- specification for stabilising perimeter walls and water management scheme;

- prepare long term management scheme.

2. Site with groundwater barrier

Primary ground investigation

- geological, hydrogeological and geotechnical profile of site to depth of c.10 metres below base of proposed workings;

- samples of all strata for in situ and laboratory testing;

- monitor groundwater, and relate to rainfall events, commencing (at least) 1 year prior to submission of application.

Secondary & tertiary ground investigation

- Further assessments of groundwater and for selecting materials for earthworks construction (with or without artificial liner);

- water balancing and other management factors as for 1.

A28 It may also be desirable for the landowner, where different from the applicant, to covenant with the MPA to maintain the under drainage of the land and any groundwater barrier or other works designed to prevent the ingress of water into the restored site. In a planning obligation of this type, it will be important to include all the necessary parties.

Handling soil during mineral working operations

Introduction

A29 For after-uses requiring the growth of vegetation, effective reclamation will depend on the appropriate identification and management of soil resources prior to and during work as well as in the later stages of restoration and aftercare. Soil resources in this context are taken to include any medium with a realisable potential to permit plant root growth and to provide water and nutrients.

A30 Pre-application site investigations should provide adequate information on the amounts and characteristics of topsoil, subsoil, soil-making materials and overburden; drainage and original landforms. Table 2 gives a broad indication of important soil characteristics and the extent to which planning conditions may be employed to minimise alterations to those characteristics which may in turn affect the standard of restoration achieved on a site. Figure 1 is an idealised diagram of typical soil horizons and their characteristics.

A31 Planning conditions will normally require the separate stripping, storage (where necessary) and respreading in correct sequence of defined thicknesses of topsoil, subsoil, or any other soil-making materials. Some sites may contain considerable variations of soils within them, such as major textural differences, and it is often desirable to require separate stripping (and storage and restoration) of each main soil type. Subsoils, for example, often comprise two or more layers which may vary in their physical and chemical characteristics. Such soil variations should have been identified in pre-application site surveys and taken into account in the proposed restoration profiles in the reclamation plan. However, it is important not to make the requirements for separate stripping of each soil type too complicated for the operator to deal with in a practical manner.

Soil handling machinery

A32 It has been relatively unusual for particular types of machinery to be specified in planning conditions for soil movement, since this restricts flexibility to take account of advances in techniques and practice over the total period of the mineral operations.

A33 Two systems for handling soil are commonly used in Britain; earthscrapers, and dumptruck and excavator, with hybrids of the two being used in some instances. Bulldozers are also often used, particularly in conjunction with dump truck and excavator, or with dumptruck only, to spread soil.

A34 The dumptruck method if correctly implemented, should minimise soil compaction and allow movement of soils across a wider range of moisture contents than a scraper, which undoubtedly compacts soils moved when moist. It may also reduce the need for remedial work during the aftercare period. The dumptruck method should, therefore, be considered particularly for sites affecting the best and most versatile agricultural land. It is also recommended by the Forestry Authority as a means of loose tipping soils prior to the establishment of trees. Dump trucks come in a range of sizes and capacity and it should be noted that the larger the machine the greater the risk of soil compaction unless ground pressures can be reduced by use of suitable machinery. However, if the technique is properly used, passage of dump trucks over the soil should not occur.

Figures

Figure 1 - Typical Soil Horizons and Characteristics

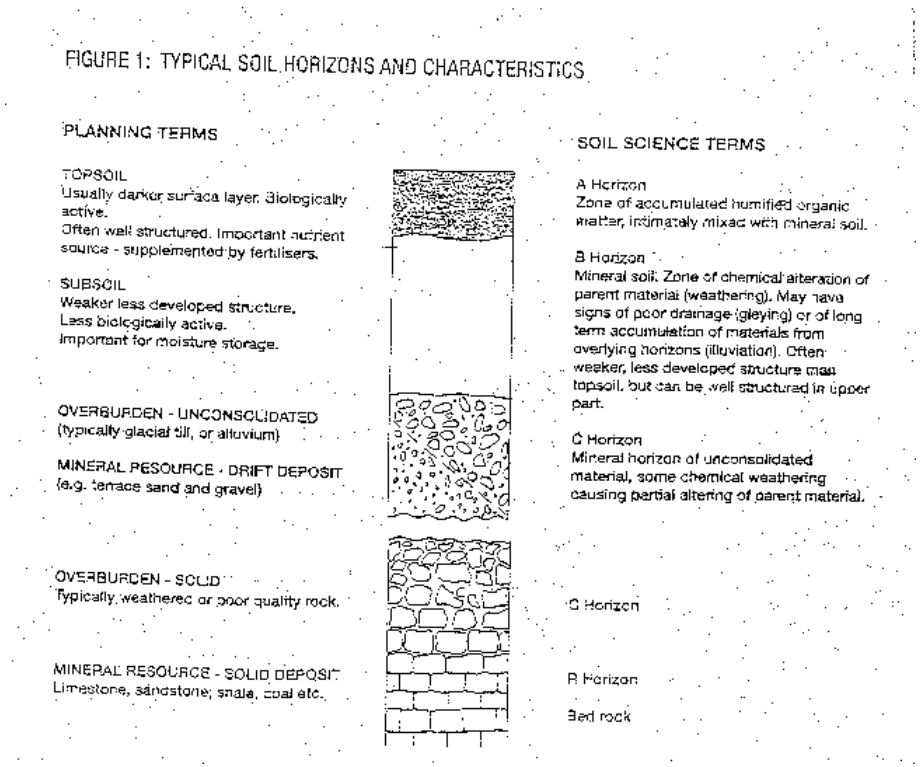

Table 2 Soil characteristics and effects of disturbance

Soil characteristics	**Effects of disturbance**	**Effects controllable by planning condition**
Soil Profile And Depth: Arrangement and thickness of different horizons (topsoil, subsoil and weathered parent material).	Possible mixing of soil types and soil horizons, loss of material, possible bulking during soil movement and subsequent resettlement.	Careful separate stripping, storage and respreading of soil horizons, to specified depths, commensurate with amounts of soil present, and proposed after-use. Avoidance of soil mixing.
Soil Texture: Size range of primary particles present (sand, silt, clay etc).	Not necessarily altered if soil movement carefully controlled.	Careful separate stripping, storage and respreading of soil horizons.
Stoniness: Particles greater than 2 mm diameter. All stones dilute the volume of soil and reduce available water capacity. Larger stones interfere with cultivation especially those in the topsoil.	Possible increase due to mixing of different soil horizons or replacement of stony horizons nearer the top of the soil profile. Contamination with overburden.	As for Soil Profile And Depth Also, ripping followed by stone picking upon replacement of stony layers.
Soil Structure: Arrangement of individual soil	Inevitable disturbance by soil movement;	Avoid soil movement in wet conditions; use direct respreading

particles into larger compound units or 'peds' with channels between.	extent depending on initial structure, site conditions, method of movement. Compaction; increase in bulk density; loss of number and continuity of macro pores and fissures; impeded drainage. Subsoils are generally most prone to longer term damage.	where possible; specify agreed soil handling methods and machinery so as to avoid trafficking by heavy machinery; subsoiling and other cultivations of replaced soil; remedial cropping.
Bulk Density: The weight of soil per unit volume. A measure of compaction, and related to soil structure and texture.	Possible loosening during stripping decreases bulk density but main danger is increased bulk density by passage of earthmoving machinery.	As Soil Structure.
Soil Drainage: Movement of water through the soil. Depends mainly on soil texture and structure; and level of water table.	Disturbed by soil movement.	See Soil Texture and Structure. Levels and gradients of reinstated sites; subsequent installation of drainage system.
Available Water Capacity: Measure of moisture that plants can extract from the soil. Related to texture, structure, stoniness and depth of the soil profile that roots can exploit.	Altered by change in soil structure due to soil movement. Usually decreases with increases in bulk density and water becomes less accessible to plant roots where compaction is severe.	Not directly; but indirectly by conditions on soil movement.
Nutrient Status And Chemical Characteristics: Content of main plant nutrients (N, P, K, Ca, Mg), acidity (pH), and micro-nutrients (eg Mn, Cu, Mo Fe).	Soluble compounds leached during storage of soils, and pH may be lowered. Anaerobism in wet/ compacted soils. Possibility of contamination.	Addition of lime and fertilisers, as indicated by standard analysis, on replacement of soils and during aftercare period. Occasionally may need fertiliser and lime added to soil stockpiles. For forestry, foliar analysis may determine nutrient requirements during aftercare.

A35 Where particular machinery and methods of use are favoured at the outset, it may be helpful to review their appropriateness from time to time.

Soil stripping

A36 Compaction, smearing and loss of soil structure can be caused by handling and movement of soils in unfavourable weather and soil moisture conditions, by unsuitable storage of soils, and by passage of machinery with high axle weights or ground pressures across soils. In many cases it is not possible to remedy such damage, particularly where compaction has occurred in the lower soil profile.

A37 Planning conditions should aim to minimise this potential for damage through limiting when and how soils are moved. Soils movements can be restricted to dry conditions in general terms, by reference to particular soil moisture conditions or by rainfall criteria.

A38 The use of rainfall criteria was considered in a report for the DOE to be unnecessarily restrictive in some cases. The use of soil moisture status appears to be more common and may provide a more flexible mechanism to ensure that soil damage is minimised. However, the study concluded that the single most important requirement was to ensure that the conditions imposed are properly complied with. Guidance on methods to determine the appropriate timing of soil movement is given in the report "Guidance on good practice for the reclamation of mineral workings to agriculture". Even during periods of weather generally suitable for soil stripping, supervision should ensure that operations are suspended after heavy rain. The damage caused to soils by continuing earthmoving during adverse soil moisture conditions may be costly or impossible to reverse during aftercare. Suitably dry soil moisture conditions for stripping subsoils are more likely to be achieved if the site is kept vegetated or, in arable situations, if a temporary grass sward is established for the period prior to stripping.

A39 In areas of high rainfall and with some heavier-textured soils it may be more difficult to get ideal circumstances in which to move subsoils. In these circumstances the soil handling methods employed should be designed to minimise compaction and an appropriate programme of cultivation devised.

A40 The movement of soils in dry and windy conditions can cause a dust nuisance to surrounding property or some types of land-use (eg some wetland habitats) or sensitive industrial developments (eg 'high tech' industries). Planning conditions may therefore need to provide for cessation of soil movements in certain weather conditions, if nearby properties or sensitive habitats might be affected. Further guidance is available in "The environmental effects of dust from surface mineral working". There may also be potential problem of suspended solids in run-off following soil stripping. Controls to prevent run-off of soil into surface waters should be put in place where this is identified as a potential risk.

Soil storage

A41 Wherever possible soils should be moved directly from areas being stripped to areas being restored, as storage necessitates double handling and increases the opportunities for soil losses. Progressive reclamation reduces the need for soil storage, but this may still be required for part of a site.

A42 Current evidence suggests that while some deterioration to soil quality can occur during storage, such changes tend to be fairly rapidly reversed following restoration, although microbial biomass and activity as well as structural stability may take longer to recover.

A43 Planning conditions will need to define the location, height and shape of storage heaps and in many cases provide for their management, such as by seeding and weed control.

A44 Soil stores should not be sited in locations which lie wet or are liable to flooding, or where soil mixing, loss or damage by trafficking is likely to occur. When planning the siting of storage mounds consideration should also be given to landscaping and noise attenuation requirements.

A45 Whilst it is generally accepted that low soil storage heaps are preferable in order to minimise deterioration of soils in the inner parts of heaps, there are no universally applicable maximum height limits. However it is recommended that soil heaps should be restricted to the minimum height practicable, compatible with the amount of soil storage space available on site.

A46 MAFF have published a "Code of good agricultural practice for the protection of soil" which provides practical guidance to farmers on the avoidance of long-term damage to soil. This includes advice on the handling and management of soil during and after mineral extraction. While being primarily aimed at land for agriculture, the guidance also has wider relevance for the management of damaged soils used for other purposes.

Routeing of vehicles

A47 Conditions should be used to control the routeing of vehicles to avoid unnecessary trafficking over unstripped or restored soils, or over soil storage heaps. Recently respread soils are particularly vulnerable to damage. Criteria for the control of soil movement need to be determined for each site individually since soil and site characteristics vary.

Restoration

A48 Restoration refers to the replacement following mineral extraction of any or all of the following, subsoil, topsoil and soil making material. Restoration conditions can require the placement of soil in the appropriate order, and to appropriate depths. They can also require mechanical subsoiling of the restored soil layers to relieve compaction and remove stones. It is generally appropriate to require subsoiling of the uppermost layers of overburden before placing subsoils. Where soils are not placed by loose tipping using dump trucks, it is often appropriate to replace subsoils in layers, with subsoiling of successive layers prior to placing the topsoil. All soil movements and treatments must be undertaken when the soil moisture conditions are suitable and having regard to the effective depth of subsoiling equipment. The guidance in Table 2 (soil characteristics and effects of disturbance) is also applicable when considering suitable restoration conditions.

A49 The use of available soil resources should be planned so as to match soil quality and depth with the requirements of the proposed after-use(s) and target reclamation standard. This may be particularly appropriate where the reclamation scheme includes a number of after-uses.

Soil making material

A50 Many older mineral workings and some more modern sites have limited quantities of soil available for restoration purposes. It is often inappropriate to import large volumes of soil, because of the high cost, and the variable and often poor quality of available materials. The use of on-site quarry and other waste materials as soil making material is already widely used by some sectors of the minerals industry and those involved in derelict and landfill restoration.

A51 The wide ranging characteristics of different soil making material makes it difficult to provide specific guidance for their use. However, Forestry Commission Bulletin 110 provides guidance on the minimum physical and chemical qualities acceptable for forestry use (see Table 4 in Annex B). These are likely to be generally acceptable for a range of other after-uses. British Standard BS 3882:1994 "*Topsoil and other growing media*" provides quality standards for the use of imported soils and soil making material and advisory guidance on soil handling and management. In addition, efficient systems need to be agreed and established for checking the quality of materials as they are imported onto site and covered by specific planning conditions.

A52 If quarry or processing 'wastes' are to be used as soil making material, especially without any natural soils, it is recommended that their suitability for establishing and maintaining vegetation is assessed by prior site field trials. With agricultural after-uses and to a lesser extent forestry, the growing medium should be able to retain applied fertilisers and to supply the growing crop with relatively high levels of nutrients. In contrast, some amenity and nature conservation after-uses require substrates which supply plants with only very low levels of nutrients. In such cases, the use of soil making material such as quarry wastes may be preferable to topsoil or other similar materials (see also paragraph A79). The Department has commissioned research which will provide more detailed guidance on the appropriate selection, use and management of soil making material and the use of amendments such as sewage sludge.

Drainage

A53 Soil wetness caused by inadequate drainage is one of the most common limitations to the achievement of high standards of reclamation. There are a number of causes of excessive wetness including:

i. poor infiltration leading to surface ponding and run-off;
ii. compacted and slowly permeable horizons within the restored soil profile impeding the downward movement of surplus water;
iii. a slowly permeable substrate below the soil profile;

iv. a high water table.

A54 Site drainage can usually be achieved by a combination of topography, permeable soils, and where necessary, the installation of underdrainage.
A55 Compaction within the soil profile occurs most often when machinery is allowed to pass over the restored soil. Relief of compaction in the deeper soils usually requires loosening either by subsoiling or ripping during the restoration stage, with in some cases, repeated treatments during and possibly beyond the aftercare period. Sequential ripping and replacement of shallow layers of soil can enhance the effectiveness of profile loosening. For agricultural after-uses, it is usually necessary to install an under-drainage system as part of the after-care requirements (see paragraph A75 to A77). Compaction of the surface may be required however, for specific uses, such as built development or some forms of habitat creation. This should be carefully planned and not result from poor practice.
A56 Ripping is most effective on soils which are dry enough to shatter readily. However some soils may remain too wet over most of the year to be effectively ripped.
A57 Soils replaced over impermeable substrates rely on the lateral movement of water either across the soil surface as run-off or through the soil profile. This is greatly assisted by a sloping topography, and a loose and permeable soil. Where soils are directly replaced over free-draining substrates, such as the permeable floor of some limestone or chalk quarries, there is less need for gradients to be created for drainage purposes. However, it is particularly important that soils are placed and maintained in a loose state to allow for down-ward drainage.
A58 Discharge from on-site drainage can affect downstream watercourses or groundwater. Sites with potential drainage problems should be subject to an investigation to ensure the acceptability of the reclamation proposals. Early consultation with the Environment Agency is recommended.

Aftercare

Introduction

A59 The ultimate aim of aftercare treatments is to bring restored land into a condition which does not need to be treated differently from undisturbed land in the same use.
A60 In England as of 1994, more than 35,000 hectares of land permitted for mineral extraction was covered by aftercare conditions. This represents over 30% of the total permitted area, and compares with only 16% in 1988. Mineral types which in general have a relatively short life-span have a higher proportion of their total permitted area covered by aftercare conditions (eg two thirds of the area permitted for opencast coal extraction and 45% of sand and gravel areas had requirements for aftercare).
A61 The text below provides general guidance on preparing aftercare schemes. It should be relevant to all sites for which aftercare is appropriate (ie agriculture, forestry or amenity uses, including nature conservation) except where it is more practical to impose an aftercare condition specifying the steps to be taken. The main text provides guidance on the procedural arrangements for imposing aftercare conditions, and on the standards to be achieved. Guidance on the specific requirements for restoration and aftercare for different after-use is provided in Annex B.

Aftercare scheme preparation

A62 The preparation of an aftercare scheme should begin at least six months prior to commencement of aftercare on all or part of the site with the submission of outline proposals to the MPA. This will allow time for consultations and any necessary amendments to be made before a scheme is agreed.
A63 The preparation of a successful aftercare scheme requires two levels of information from the mineral operator:-

i. An outline strategy of commitments for the five year aftercare period.
ii. A detailed programme for the forthcoming year.

A64 The outline strategy should broadly outline the steps to be carried out in the aftercare period and their timing within the overall programme. A summary of the main items to be covered within the outline is given in Box 5. It should be submitted to the MPA at least three months prior to the commencement of aftercare.
A65 A map should accompany the outline, identifying clearly all areas subject to aftercare management, with separate demarcation of areas according to differences in the year of aftercare and proposed management. Where a choice of options is retained this should be made clear together with criteria to be followed in choosing between them.
A66 Commitments to provide the MPA with additional plans, specifications, site records or analyses for approval at specified intervals ought also to be covered. Normally such information is required one month in advance of agreed consultations.

Box 5

Outline Strategy For An Aftercare Scheme

The outline strategy document should cover as appropriate the aftercare steps detailed below plus any additional aspects that may be required by the mineral planning authority. Person(s) responsible for carrying out these steps ought also to be identified. Aftercare steps to be covered include:-

1. Timing and pattern of vegetation establishment

A brief description of sequence of vegetation establishment over the full aftercare period eg "the land will be put down to grass. Initially with a short term ley which will be ploughed up and reseeded after 2 to 3 years and replaced within a long ley mixture," or "Trees will be planted in years x and y according to plan X". Details of species composition, stock type and size, spacing, method, timing and position of planting. For nature conservation, proposed method of vegetation establishment (natural colonisation, turf transplants, seeding etc). A ground plan showing where different species are to be planted is helpful. Where a range of options are to be retained this should be made clear.

2. Cultivation practices

An outline of the range of cultivations likely to be undertaken. This is necessary since on some sites certain practices can be detrimental to soil structure. Adoption of non-specified techniques will be permissible at a subsequent date subject to mineral planning authority approval where these are unlikely to prove harmful. The need for flexibility is recognised in view of changes over time in the design and availability of machinery.

3. Secondary treatments

Commitments to undertake secondary treatments such as moling, subsoiling (and in some instances, for woodland establishment, discing to form low planting ridges), and stonepicking need to be outlined. Since the efficacy and need for such treatments is dependent upon soil conditions all that is required is a general statement of intent accompanied by criteria for determining the need for such treatments. For example "During cultivations any stones lying on the surface which are larger than would pass through a wire screen mesh spacing of xxx mm, together with other objects likely to obstruct future cultivation, will be removed from the site."

4. Drainage

This should cover any commitments in principle to undertake under-drainage; consultations with the mineral planning authority in advance of installation to agree scheme design; timing of installation work within the aftercare programme plus commitments to carry out any necessary maintenance works or temporary drainage measures.

5. Management of soil fertility, weeds etc.

To cover measures for improving soil fertility and control of weeds. The basis for determining need and application rates should be outlined (eg soil sampling and analysis); appearance or health of vegetation in amenity schemes. Methods of maintenance of required soil fertility (fertilisers, use of legumes, organic manures, sewage sludge etc).

6. Irrigation and watering

This is likely to be a component in a minority of aftercare schemes only. Where it is proposed information should be provided to cover equipment specifications, siting of installations, and criteria for determining irrigation rates.(It should be made clear that all necessary consents for abstraction etc must be obtained in advance.) Where investment in equipment is intended, early discussion will

enable applicants to assess whether their plans are compatible with aftercare requirements.

NB Footnote. Fencing, provision of water for livestock and management of water areas are not covered by aftercare conditions since they are not "treatment of the land". Where their provision is essential for satisfactory aftercare management alternative arrangements are needed to cover these aspects. Some aspects can be required as a separate planning condition.

Box 6

Detailed Annual Programme For An Aftercare Scheme

The elements of the scheme requiring consideration should identify the person(s) responsible for the succeeding year's programme unless this is adequately covered in the outline strategy. Detailed prescriptions should then be provided for specific steps where appropriate including:-

1. Vegetation establishment

Details should be provided for the cropping programme/ planting schemes on site (see also 6. below). For each field/area information should include details on:-

The nature and timing of any cultivations and stone picking operations including approximate depth of activities.

The content and origin of seeds mixtures; proposed seed rates and timing of sowing operations.

Proposed fertilizer and lime application rates based upon the results of soil nutrient analyses.

Details of spraying programmes, both herbicides and fungicides, so far as these are known at the aftercare meeting. Plus commitments to carry out all reasonable spring dressings as the on-going situation demands.

2. Vegetation management

For grassland, this should cover the anticipated timing and frequency of cutting; grass removal; proposed grazing regime including type, age and numbers of livestock and the extent of the grazing period. For other vegetation types, similar consideration should be given, together with specific requirements for the desired vegetation, including weed control.

3. Secondary treatments

Specifications should include timing, working depths, tine spacings and the equipment to be used for moling and subsoiling operations.

4. Field drainage

Details on the timing of underdrainage installation work for the forthcoming year plus scheme details including a map showing pipe layout plus details on installation method; drain spacings;

drain depths; pipe size and gradients; nature and depth of permeable fill; outfalls; post installation remedial works.

5. Irrigation/watering

Details of irrigation proposals specific to the forthcoming year.

6. Tree and hedge establishment

This should confirm establishment proposals for the forthcoming year covering ground preparation, planting details (species, type of stock, establishment methods, planting density, timing) and maintenance including, as appropriate, beating up (ie replacement of dead trees); weed control policy; fertiliser application protection from grazing animals and cutting/pruning.

A67 The detailed programme should cover requirements for the forthcoming year, including those identified in Box 6. It should:-

i. Amplify the outline strategy for work to be carried out in the forthcoming year.
ii. Confirm that steps already specified in detail in the outline strategy will be carried out as originally intended.
iii. Include any modifications to original proposals e.g. due to differences between actual and anticipated site conditions.

A68 The first detailed programme should be submitted with the outline strategy. Subsequent detailed programmes should be submitted annually to the mineral planning authority for approval not later than one month prior to the annual aftercare site meeting, at which they will need to be discussed and agreed.
A69 These schemes need to be discussed and agreed by the mineral planning authority, the person(s) responsible for the conduct of the aftercare programme and any expert advisors. In the majority of cases, the operator, tenant or landowner has a vested interest in the success of aftercare as the greater costs have already been incurred in complying with restoration conditions. Where expensive equipment is to be purchased for aftercare purposes, early consultation is particularly advantageous to ensure that proposed purchases are compatible with aftercare requirements.
A70 The MPA will need to bear in mind that no two aftercare programmes will be exactly the same and that the way in which any individual scheme is implemented will depend on a number of factors such as weather conditions, the quality of materials used and the condition of the individual site.
Aftercare steps
Choice of vegetation
A71 In agricultural aftercare, the choice of crop is important. The crop grown should be matched to the nature and state of soils present, the local climate, requirements for remedial aftercare treatments and specialist skills of the person farming the land. In particular, and so as to minimise the risk of damaging soil structure, crops should not be grown where there is need to undertake cultivations, harvesting operations or traffic across land with agricultural equipment when soils are wet.
A72 Grass traditionally been used as the initial aftercare crop, although for sand and gravel sites in particular, there has been a growing trend for agricultural cropping to be based entirely on arable crops or vegetables. Cereals are probably the most suitable arable crop as their deep rooting habit helps to promote the re-establishment of the subsoil structure. Crops which leave the soil bare over the winter months, require harvesting late in the year because of the crop type (eg root crops) or climatic constraints, or have limited root pattern are not normally appropriate.
A73 The selection of amenity and woodland vegetation should be strongly influenced by the conditions prevalent on, and adjacent to, the site and the particular type of after-use. Further guidance is given in Annex B. Where possible it is also preferable to select species that are characteristic of the local area, although in some cases this may not be possible. Forestry Commission Bulletin 110 provides guidance on the selection of appropriate species. Guidance is also available in the report produced for the Department "*Amenity reclamation of mineral workings*".
Cultivation techniques and secondary treatments
A74 The specific requirements for cultivation and other treatments will depend to a large extent on the after-use and the need to remedy localised problems such as poor drainage, compaction, settlement and vegetation failure.
Under-drainage
A75 Achievement of satisfactory soil drainage is essential if high standards of reclamation are to be achieved since excessive wetness affects seed germination, root development and the range of plants, including agricultural crops, that can be grown. Of particular relevance to restored land, inadequate drainage increases a soil's susceptibility to structural damage and reduces the effectiveness of remedial aftercare treatments. It also reduces the number of days when land is suitable for cultivation,

passage of machinery, grazing by livestock or use for some intensive amenity purposes.
A76 Over large areas of England installation of artificial drainage systems is required to achieve satisfactory control over soil wetness. This is especially the case with much restored land if suitably high standards of reclamation are to be achieved. Installation of under-drainage is nearly always necessary for agricultural and some forms of amenity use, where the land contained drains prior to mineral working and may also be required to overcome adverse changes to site physical characteristics caused by mineral operations. Nevertheless, there are exceptions where underdrainage may not be needed, namely where the original soils have been replaced by soils which are substantially lighter in texture, where restoration enables pre-existing groundwater problems to be overcome, and for some forms of habitat creation (eg wetlands).
A77 However, it is much more common for under-drainage to be required where it did not previously exist and such instances occur where:
i. permeable sandy materials are removed and the depth is significantly reduced between topsoil and underlying impermeable layers e.g. clay subsoils, underlying basal clays or a landfill cap;
ii. soil handling operations significantly damage soil structure so reducing the permeability of subsoils;
iii. removal of material introduces the need for groundwater control.

It must be accepted, however, that underdrainage installed at the outset may be affected by subsequent ground settlement and thus, may need to be repaired or replaced. Guidance on the use of underdrainage on landfill sites is to be included in WMP26E.
Fertilisers
A78 Adequate fertiliser should be used on restored land and additional nitrogen, especially following soil storage, is often appropriate. Fertiliser and liming recommendations for agricultural restoration are usually based on MAFF indices derived from standard soil analyses. These are given in Reference Book 209 (1994) "*Fertiliser recommendations*" and Reference Book 35 (1988) "*Lime and liming*" both published by MAFF.
A79 For amenity, nature conservation and tree planting schemes the need for fertiliser addition, and levels of application will depend on the nature of the substrate and the vegetation type being established. With many amenity schemes, adequate soil nitrogen levels can be attained using grass/legume mixes. Small applications of other plant nutrients (such as phosphorus and potassium) may, however, be required. The success of many nature conservation schemes may depend on the soil providing only very low levels of plant nutrients (see paragraph A52). In some cases the application of fertiliser will be unnecessary, and could damage the nature conservation interest. Further guidance is given in "*Amenity Reclamation of Mineral Workings*" and "*Reclamation of damaged land for nature conservation*". Over-application of fertiliser can result in pollution of surface and ground waters and should be avoided.
A80 On soils or substrates which are deficient in nitrogen, the use of legumes, either as the predominant species or in mixture with others, can assist in the build up of soil nitrogen, reducing, in many cases, the need for additional fertiliser applications.
Weed control
A81 Weed infestation can cause crop failure on land being reclaimed to agriculture. Thus weed control by appropriate application of herbicides or, in grass, by cutting or grazing will be a necessary part of the aftercare programme. Arable crops may require regular weed control throughout the growing season as well as other sprays against diseases and other pests. Specialist advice is needed to choose which herbicides, fungicides and pesticides to use and when and how to apply them.
A82 Weed control is particularly important for tree planting schemes. Competition for water and light by fast growing weeds can reduce growth rates significantly and in some cases result in tree death. It is generally recommended that a weed free zone of 1 metre is maintained around each tree. Guidance on appropriate methods is given in Forestry Commission Bulletin 110. Under the provisions of the Weeds Act 1959, it is also the responsibility of all occupiers of land - whether used for agriculture or not to control injurious weeds, so that they do not spread to nearby agricultural land. For amenity and nature conservation schemes, weed control may be important to prevent dominance of a limited number of aggressive species. However, care must be taken when choosing and applying weed killers to prevent harm to plants of interest. Weed control can also be achieved in many situations using mulches. This has the additional advantage that it also reduces water loss from the soil, and therefore the need for watering. Guidance on the need for weed control and on appropriate methods for different types of amenity after-use is given in "Amenity reclamation of mineral workings".
Irrigation and watering
A83 The success of vegetation establishment in some parts of the country may be severely limited by long dry periods and drought. Trees and shrubs may be particularly susceptible in the first few years following planting and if not watered may die. The replacement of dead plants can be costly and can set back progress during aftercare. During prolonged dry periods it is therefore advisable to water plants. Consideration should therefore be given to the potential need for watering, and methods of applying it when planning the reclamation scheme to ensure that sources of water can be made available and that appropriate methods are available for its application. The need for watering can be reduced, especially of trees and shrubs in particularly dry parts of the country, by selection of drought resistant species and by applying mulches to the soil surface.
Control of livestock and pests
A84 Uncontrolled grazing by animals such as sheep and rabbits can seriously affect the quality of reclamation. Excessive grazing pressure can expose the soil surface and result in erosion, while excessive trampling of fragile soils can result in poaching, loss of soil structure and erosion. In contrast, grazing at low intensity can be an important management tool, as it can encourage the establishment of wildflowers, and for agricultural land, it can contribute to the build up of soil nitrogen and promote soil structural development.

	A85 Livestock should therefore be carefully managed on reclaimed land. In the early years following restoration, possibly extending beyond the aftercare period, the land may be unable to support as many animals per hectare as undisturbed land. It will normally be necessary to exclude livestock altogether during winter months and at other times if soils become wet. A86 The level of control of rabbits and other pests will need to be site specific. It is generally preferable to exclude the animals altogether, rather than to control them once established, although as indicated in paragraph A84, some grazing can be beneficial. Rabbits can be excluded using fencing, which may need to be maintained on a regular basis. Individual trees can be protected from rabbits, voles and other browsers using tree guards, some of which have the additional benefit of sheltering young trees from exposure. Rabbit numbers may need to be monitored well beyond the aftercare period, and control measures, such as shooting and gassing, may be necessary. The risk of rabbit infestation can be reduced by ensuring that habitats they favour, such as scrub, are removed from surrounding areas of land prior to site reclamation. This may, however, only be possible in a limited number of situations.	
Annex B	**Annex B : Reclamation for different after-uses** Choice of after-use B1 The main text of this MPG sets out the key policy issues which influence the choice of after-use for the reclamation of mineral workings. This Annex provides more detailed guidance on consultations and technical matters which are relevant to drawing up and implementing planning conditions for different after-uses. For agricultural and forestry after-uses, there is a statutory requirement to consult with MAFF or the Forestry Commission as explained in the relevant sections below. This has lead to a well developed system for assessment and implementation of restoration and aftercare schemes. For other after-uses, and in particular for nature conservation and other forms of amenity there is a vast range of possible options for reclamation. While many of the procedures will be similar for all after-uses, each use will have its own specific requirements. It is not possible in a document of this size to give specific technical guidance for each after-use. However, over the last few years, the Department has published a number of reports which provide comprehensive guidance on best technical practice for the range of after-uses. While they are not the only sources of information available, the comprehensive literature reviews they contain should provide a useful link to other relevant material. The bibliography in Annex E provides the full list of relevant DOE research reports. B2 In many cases it is possible to integrate more than one after-use within a restored site. For example, even where it is proposed that the main land use is to be agriculture, it may be appropriate, subject to other planning considerations, to establish woodlands, nature conservation interest, or water-areas at the margins. Where forestry/woodland is proposed, it is Government policy to encourage a more recreational based use than solely timber production. Again there may be opportunities to provide for nature conservation or formal and informal recreation. B3 The degree to which the after-use of a site can be specified prior to extraction will depend on the life of the working and the mineral type. However, whatever the proposed after-use, the same general principles apply to the need for protection of the soil resource and ultimately restoration and aftercare. B4 When considering the suitability of alternative after-uses it is important to have regard to the long-term implementation of the use, and in particular who is likely to be responsible for long-term site management and finance. Reclamation to Agriculture *Role of MAFF* B5 For mineral planning applications, MAFF has a statutory role in advising the MPA on the land use implications of all development proposals affecting Grades 1, 2 and 3a land over a certain size threshold (20 hectares), or on less than 20 hectares in circumstances where the development is likely to lead to further losses amounting cumulatively to 20 hectares or more. MAFF is also a consultee on aftercare conditions for all sites to be restored to agriculture irrespective of site size or land quality. MAFF's 5-grade Agricultural Land Classification System (ALC) and its uses and limitations is explained in Annex A to PPG7. Advice on consultation with MAFF is also given in MPG2. B6 The following paragraphs provide guidance on the procedures followed by MAFF's Regional Land Use Planning Unit in relation to minerals planning. B7 Where reclamation to agriculture is proposed in a planning application MAFF have a responsibility to offer mineral planning authorities a view on the appropriateness of this after-use and on suitable aftercare conditions if planning permission is to be given. Such consultation is required regardless of the area of land involved or its agricultural quality. MAFF may also provide advice and comment on site working and restoration since the achievement of good standards in the aftercare period depends in part upon appropriate and satisfactory (and enforced) stripping, movement and restoration of soils and contouring. Likewise MAFF will assist MPAs to enforce standards by passing on intelligence that it receives concerning site specific breaches of planning requirements that are detrimental to agricultural reclamation. B8 In determining its responses to development proposals MAFF will take into account, inter-alia, the feasibility of achieving a high standard of restoration and the adequacy of proposals submitted by the applicant for site working, restoration and aftercare. B9 In practice MAFF's response when consulted will normally take one of the following forms:- i. an objection to the application; ii. a conditional objection citing proposals for the agricultural restoration and/or aftercare of the land which are inadequate or missing; iii. a conditional acceptance citing, if necessary, additional conditions to the restoration and aftercare proposals; iv. a technical appraisal of the agricultural consideration with, where appropriate, any comments on the restoration and/or aftercare proposals. MAFF will deploy staff resources where they can be used most effectively. For sites of less than five hectares, MAFF will not normally make site visits when advising on site working, restoration or aftercare considerations. However, in all cases the technical response will provide sufficient information to assist MPAs to consider the agricultural implications	

together with the environmental and economic factors; or
v. wrong referral where a non-agricultural after-use is proposed for a site that affects less than 20 hectares of Grades 1, 2 and 3a land and where the development is unlikely to lead to further losses that cumulatively affect 20 hectares or more of such land.

Responses categorized in i. to iii. above will only be made where an application involves a significant amount of the best and most versatile land.

Form of agricultural aftercare conditions

B10 When imposing agricultural restoration and aftercare conditions, MPAs should consult MAFF on the form of the aftercare condition (cf. paragraph 62 in the main text). There will be cases where it would be appropriate to specify the aftercare steps in the aftercare condition itself e.g. most sites under five hectares. But in many other cases, and particularly where a long-term permission is being sought, it may be more appropriate to impose a condition requiring the submission of an aftercare scheme at a later stage. In such cases, the steps to be included in the scheme should be outlined in the permission, but they can be drawn up in detail by the mineral operator, in consultation with MAFF and the MPA, when restoration is nearing completion (see paragraphs A62 to A70 in Annex A).

B11 To assist operators with scheme preparation, MAFF may be prepared to attend a pre-aftercare meeting convened by the MPA. Guidance on the level of detail generally required and items to be included in aftercare schemes is given in Annex A. To be most effective such meetings should be held about six months prior to the commencement of aftercare on all or part of the site. Such meetings may not be required for all sites, particularly where aftercare requirements have been previously discussed in detail or where previous guidance has already been given on a similar site.

B12 The aftercare scheme should be submitted to the MPA by the operator at least three months prior to commencement of aftercare of the full site or any phase of it. This gives adequate time for the authority to consult MAFF and for any necessary amendments to be made.

Progress and completion of aftercare

B13 Where aftercare is carried out subject to an approved scheme, it is essential that the MPA, and through them MAFF, are consulted by the site operator at least annually on the way in which aftercare conditions are being complied with. This is most effectively achieved by the site operator providing, for the MPA's approval, a record of work undertaken and a detailed aftercare programme for the forthcoming year.

B14 Upon receipt of these documents, the MPA will consult MAFF and determine whether it is necessary to arrange an aftercare review site meeting to review progress. In response, MAFF will provide advice to the MPA on whether the detailed record of work undertaken and the programme for the forthcoming year satisfy aftercare requirements. MAFF will attend such agreed aftercare review meetings as may be appropriate.

B15 Aftercare meetings generally need to take place between the person(s) responsible for carrying out the aftercare (the mineral operator, tenant or landowner) the MPA, and any expert advisers.

B16 There may be cases where inspections at more frequent intervals than a year would assist in achieving adequate aftercare. If this is the case it will be for all parties to agree to holding the additional meetings.

B17 The MPA may involve MAFF in the issuing of a certificate confirming that aftercare conditions have been complied with (cf. paragraph 69 in the main text).

Reclamation to Forestry

Role of the Forestry Commission

B18 The Forestry Commission is responsible for regulating forestry in the UK. The Commission operates a national advisory service through the Forestry Authority which administers Government grants and undertakes statutory duties in relation to forestry. It has specialist staff to advise on forest design and on site preparation and site conditions. It publishes a series of guidelines which set out the standards expected of the forestry industry.

B19 The Forestry Commission is also a statutory consultee for any development requiring an Environmental Assessment and which could have an adverse effect on woodlands. Guidance is available from the Forestry Commission on the environmental assessment of forestry schemes.

B20 The Forestry Authority should be consulted if any of the following apply:
. if it is proposed that the land be reclaimed for a forestry after-use;
. woodland on the land proposed for mineral working is dedicated under the Forestry Commission Dedication Scheme, or grant aided under section 1 of the Forestry Act 1979;
. if tree planting is to be supported by a grant under the Woodland Grant Scheme or Community Woodland Supplement.

B21 MPAs are also advised to seek advice from the Forestry Authority on all significant planting schemes, including those considered as part of a more general 'amenity' reclamation.

B22 Forestry Commission Bulletin 110 "Reclaiming disturbed land for forestry" provides guidance on factors that need to be considered before, during and after mineral extraction where tree planting is proposed as part of a reclamation scheme. It considers reclamation strategies for particular types of mineral working, and provides guidance for planting trees into different substrates. A set of 'specimen conditions' are provided in Bulletin 110 for planning permissions involving forestry as an after-use, which should provide a useful basis to assist mineral operators in preparing planning applications and in the statutory consultation process. Guidance on amenity tree planting is also given in "Amenity reclamation of mineral workings" and Forestry Commission Handbook 11 "Creating and managing woodlands around towns".

Restoration conditions for forestry

B23 For new permissions, the general principles and stages in imposing reclamation conditions will be applicable for a forestry after-use (see Annex A). There is no statutory requirement for MPAs to consult the Forestry Authority on appropriate restoration conditions, as against aftercare, for forestry after-use. However, it is clear that the achievement of good standards in the aftercare period must in part depend on appropriate (and enforced) planning conditions covering, for example, the stripping and movement of soils and their restoration on appropriately contoured ground (with or without filling) after mineral extraction.

B24 Compaction on restored sites is a major problem for tree establishment and growth. Ripping can be effective in decreasing soil bulk density, but it can only be attempted immediately prior to planting, and its full effects can be short-lived. Hence it is important to consider soil placement techniques that minimise soil compaction, rather than attempt to redress soil compaction after it has occurred.

B25 Loose tipping of soil using hydraulic excavators and dump trucks produces a less compact soil than earthscrapers followed by ripping. Wherever possible the planning conditions should therefore specify this method of restoration.

B26 Drainage is probably the most critical site property for successful forestry reclamation. Under-drainage is rarely used in forestry and most opportunities to return a site with good drainage qualities occur at the landform and restoration stages by means of controlling the slopes of the land. If opportunities are missed during the restoration process it may be impossible or prohibitively expensive to install drainage during aftercare. Poor site drainage has deleterious effects on cultivating, planting operations and on longer-term survival and growth of trees.

Aftercare for forestry

B27 As with reclamation to agriculture, details of a programme of reclamation to forestry use should be individually tailored to suit the particular site in question and the prevailing conditions. Close liaison with the Forestry Authority is desirable.

B28 The timing of the first year's steps should normally be designed to prepare for tree planting between October and March. These steps may include soil sampling, fertilizing, cultivation, drainage and the sowing of nitrogen fixing and slope stabilising crops. The highest quality plants and the highest standards of plant handling and planting are essential for plant survival on restored sites. As with agriculture an annual re-assessment of the effectiveness of the aftercare steps is desirable. Fencing may be necessary to protect young trees, and so the planning permission may need to have a separate condition setting out the requirements for erection and maintenance of forest fencing.

B29 The predominant overburden materials associated with different types of mineral working are summarised in Table 3. Variations in their physical and chemical characteristics impose a range of problems for tree establishment and growth. In many cases it is best practice to select suitable species rather than to modify significantly the characteristics of the overburden materials.

B30 While some species of tree are known to be tolerant of severe conditions, there is a need to ensure that a minimum set of standards is achieved before tree planting. Guidance on the minimum standards of substrate suitable for tree growth is provided in Table 4.

B31 However, Table 3 and 4 should be taken only as a very general guide to the requirements for reclamation of individual sites. Where adequate topsoil is available a wider range of both coniferous and broadleaves species may be grown.

B32 Sewage sludge has been successfully used as a fertiliser for forestry on both reclaimed and undisturbed land. Guidance on its use is given in Forestry Commission Bulletin 107 "A manual of good practice for the use of sewage sludge in forestry".

Grants for tree planting

B33 Tree planting schemes on restored mineral workings may be eligible for the Woodland Grant Scheme, while the Community Woodland Supplement is an amenity grant which offers funding to landowners willing to open newly planted woods to public access.

Tree planting on landfill sites

B34 Where the deposit of controlled waste has been carried out, reclamation to forestry is only desirable if the integrity of the landfill design (particularly the impermeable capping and any gas control system) will not be compromised, for example by supply of adequate thickness of soil over the landfill cap (a minimum of 1.5 metres is recommended) and selection of appropriate tree species. Further guidance on the establishment of trees on landfill sites is available in "The Potential for Woodland Establishment on Landfill Sites". This updates guidance in Waste Management Paper No 26 which is undergoing revision.(See also Waste Management Paper No 27).

B35 Where it is proposed that trees are to be planted on landfill sites, it may be appropriate in some cases to delay replacement of the topsoil until such time that the site has stabilised sufficiently to minimise the risk of further disturbance necessitated by the need to maintain pollution control systems. In these cases it is recommended that initially only the subsoil is replaced and seeded with a grass mix to stabilise the soil and reduce the risk of erosion and weed invasion. The formal aftercare period would then begin once the topsoil was replaced (ie once the restoration condition has been fully complied with) and would provide for the full aftercare period for tree establishment.

B36 When MPAs carry out reviews of sites under the 1991 Act and the Environment Act, it is recommended that appropriate consultations with the Forestry Authority take place, on the same basis as with MAFF.

Reclamation to amenity uses

General

B37 Mineral workings may be reclaimed for a wide range of subsequent uses which fall into the broad category 'amenity use'. These may include open grassland for informal recreational use, basic preparations for more formal sport facilities, amenity woodland, lagoons for water recreation, and the conservation of landscape and wildlife.

B38 The Department has published detailed guidance on the planning and technical aspects of amenity reclamation ("Amenity reclamation of mineral workings"), and in a supplementary volume, advice in the form of fact sheets for each of the main amenity end uses to which mineral workings may be restored ("The use of land for amenity purposes: a summary of requirements"). Extensive guidance on the reclamation of mineral workings for nature conservation, including geological conservation, is also available in "Reclamation of damaged land for nature conservation".

B39 This section draws upon the information in these reports, to consider particular aspects of the different types of amenity after-use which may influence the drawing up of schemes for working and site reclamation - in particular restoration and aftercare.

Table 3. Mining overburden types, their principle limitations for tree growth, and best suited forestry species where topsoil or topsoil substitutes are lacking

Mining operation	**Type of overburden/soil**	**Texture**	**Major limitations for tree establishment**	**Best suited species**
Opencast coal	Hard and soft sandstones, siltstones and mudstones. Glacial tills, sandy pebbly to dense clays.	Variable, sometimes with peat. All with varying proportion of stones.	Fine to course textures leading to winter water-logging or summer drought. Stoniness; liability to compaction and erosion. N, P deficiencies.	Japanese larch, Alders, Corsican pine below 250 m O.D., Scots Pine, Birch, Willow.
Colliery spoil	Shaly material.	Silty clay and clay.	Heavy textures lead to winter waterlogging and summer drought; stoniness; liability to compaction and erosion; N, P deficiencies; risk of low pH and salinity (pyritic soils).	Alders, Birch, Hawthorn, Ash, Scots pine, Lodgepole pine, Corsican pine, False acacia.
Jurassic and Permian Limestones	Thin calcareous soils over limestone rock	Clay loam, silty clay loam, sandy clay loam.	High pH restricts species choice; soil doughtiness due to stoniness; N deficiency; risk of lime-induced chlorosis.	Italian alder, Corsican pine, Norway maple, Sycamore, Poplar.
Carboniferous Limestone	Drift: till in N England, silty drift in Midlands; some thinner calcareous soils in parts of S Pennines.	Dominantly clayey till, silty clay loam in Midlands.	Heavy textures lead to winter waterlogging and summer drought; liability to compaction; silty drift particularly erodible; N deficiency.	Alders, Birch, Japanese larch, Corsican pine, Willow.
Chalk	Thin calcareous soils directly over chalk.	Silty clay loam.	High pH restricts species choice; N,P,K deficiencies; risk of lime-induced chlorosis.	Italian alder, Norway maple, Sycamore, Poplar, Corsican Pine, False acacia.
Clay/Shales	Till covered in many places.	Dominantly clayey, though lighter textured material does occur.	Heavy textures lead to winter waterlogging and summer drought; liability to compaction; N deficiency.	Alders, Corsican pine, Japanese larch, Birch, Willow.
Plateau Gravels	Stony sandy or loamy soil.	Sandy loam, loamy sand.	Doughtiness; stoniness; low pH; N, P deficiencies.	Scots pine, Alders, Birch, Corsican pine.
River Terrace Gravels	Variable thickness and quality	Very variable.	High groundwater levels in flood plain areas, may have low pH (pyritic soils); other limitations depend on texture and stoniness of soil making material.	Corsican pine, Alders, Birch, Willow.
China clay	Variable. Ranging from	Sand, silt.	Pronounced doughtiness; low pH; N, P, K Mg	Alders, Corsican pine, Maritime pine, Sycamore,

	coarse sand to silt. Generally tipped separately		deficiences.	Sitka spruce.
Igneous	Gritty drift, often with peat surface.	Sandy silt loam, sandy loam.	Low pH; P deficiency, pioneer species.	Alders, and other
Vein Minerals	Wastes variable in composition.	Variable.	Heavy metal toxicity; N, P deficiencies; drought risk.	Alders and other pioneer species.

Table 4. Minimum standards for soil-forming materials used in restoration to forestry

Bulk density	<1.5 g cm^{-3} to at least 0.5 m depth.
	<1.7 g cm^{-3} to 1 m depth.
Stoniness	<40% by volume; few stones greater than 100 mm in size.
pH	3.5-8.5.
Electrical conductivity	<2000ì S cm^{-1} (1:1 soil:water suspension).
Iron pyrite content	<0.5%
Heavy metal content	Not excessively over ICRCL threshold trigger concentrations.
Organic contaminants	Not exceeding ICRCL action trigger concentrations.

B40 For amenity after-uses which require the planting of some form of vegetation, the general considerations in Annex A will be relevant in preparing an application and in drafting and implementing appropriate planning conditions.
B41 Many amenity after-uses have very precise topographical requirements, including site area and gradients. A knowledge of these requirements is important when deciding on the appropriate after-use for individual sites, and when planning and drawing up appropriate restoration and aftercare schemes. Reference should be made to the documents referred to in paragraph B38.
B42 The 1990 Act (Schedule 5) does not require mineral planning authorities to consult external expertise for advice on aftercare for amenity use; but they are advised to do so in appropriate cases. Mineral operators may also find it useful to obtain advice from such sources, to ensure that the proposed after-use(s) is both appropriate to its location and that the scheme is technically achievable. As with agricultural and forestry after-uses, maximum benefit is gained from consultation between the operator and external experts at an early stage in the planning process.
B43 The 1990 Act allows aftercare conditions to be applied to bring land into use for amenity purposes. Such conditions would require steps to be taken to bring the land to the required standard for the intended amenity use; and it is provided that land is brought to the required standard when it is suitable for sustaining trees, shrubs or other plants (Schedule 5, paragraph 3(4)). Where the base of the working is below the water table, part of the site could equally well become a lake for water recreation (eg angling, sailing, swimming) or nature conservation, with a requirement for trees or shrubs to be planted around the lake.
B44 If it is proposed that a site be reclaimed to a recreational after-use, both MPAs and district councils will usually be able to give advice on likely demand and design requirements, including drawing attention to relevant policies in structure and local plans (but see also "The use of land for amenity purposes: a summary of requirements").
B45 If areas are to be planted with vegetation and used for informal open space or nature conservation, the Countryside Commission, Forestry Commission, English

Nature, and the Environment Agency may each be able to provide advice on individual applications which will be useful for restoration and aftercare. The Countryside Commission's Countryside Character Programme aims with English Nature and English Heritage to help provide a framework for landscape and nature conservation. This could be useful in assisting the integration of reclamation schemes into the local landscape.

B46 The Countryside Commission have published guidance on grass species, mixes and seeding rates for different soils and types of recreational area, and on management aspects (summarised in "Amenity reclamation of mineral workings"). The Forestry Commission's Bulletin 110, Handbook 5 "Urban forestry practice" and Handbook 6 "Forestry practice" contain information on factors affecting tree growth and recommended techniques which may be useful in tree planting for amenity purposes. In addition, English Nature can advise on the recreation of grassland/heathland habitats and other reclamation for wildlife interest, as can the Wildlife Trusts and RSPB.

Nature conservation

B47 Reclaimed sites frequently provide opportunities for the enhancement of the nation's nature conservation resource by enlarging or linking together existing habitats, thus helping to offset the effects of habitat fragmentation. Restoration to nature conservation may be particularly appropriate, for example, where there are important adjacent habitats or where soil or hydrological conditions suit a particular habitat type. More generally, nature conservation as an after-use can provide a valuable and cost-effective after-use for land, which contributes to wider national policies such as the Biodiversity Action Plan.

B48 Guidance on how the Government's policies for the conservation of our natural heritage are to be reflected in land use planning is given in PPG9 "Nature conservation". It set's out the Government's objectives for nature conservation and policies for the protection of flora, fauna and their habitats under domestic and international law. Paragraphs 40-43 of PPG9 give advice in relation to minerals development.

B49 In some cases it may be possible for the extraction of minerals to create new types of habitat where they were formerly absent or rare, whilst quarry faces may provide a valuable supplement to natural rock outcrops. Many of the existing important biological nature conservation sites in mineral workings have regenerated naturally, a process which takes many years. It may be possible for this process to be speeded up using some more recently developed ecological techniques, which might be included in the preparation of schemes for working and reclamation.

B50 The planning and design of reclamation schemes for nature conservation can often be improved by undertaking a feasibility study before drawing up a detailed plan. Such a study should identify existing nature conservation interest and assess the suitability of the site for new habitats. Some of the most important factors to consider include site size, substrate quality, climate and the existence of similar habitats in the vicinity (to provide a source of colonising species). Many habitat types require non-fertile soils or mineral substrate, or the establishment of waterlogged conditions, to encourage the growth of the desired vegetation. This may require a different approach to reclamation than for agriculture or forestry after-uses. Guidance on the drawing up of reclamation schemes and the requirements for long-term management of sites is given in "*Amenity reclamation of mineral workings*", and in "*Reclamation of damaged land for nature conservation*".

B51 English Nature should be consulted for advice on habitat types and conservation practice. County Wildlife Trusts (within the Wildlife Trusts Partnership) may be able to provide useful local advice and information, and may also be able to manage reclaimed nature conservation areas.

B52 Features of geological importance may be revealed during quarrying operations. When existing evidence makes it possible to predict the likely occurrence of scientifically valuable sections the scheme of reclamation may be able to allow, from the outset, for the permanent retention of particular quarry faces or parts of them. Retention of important geological sections which are only revealed during quarrying may be possible by modifying or adapting the agreed scheme of working and reclamation. The permanent preservation of sections will not normally be acceptable where this would sterilise large amounts of the permitted mineral reserves. Particular problems may arise if it is intended to fill the site with imported waste. It may be possible to safeguard sections by preventing tipping against them and by appropriate contouring of the final surface. Permanent retention of features of geological interest will need to take account of issues such as access, maintenance, and the responsibility for ensuring safety of exposed faces which do not come within the Mines and Quarries Act 1954.

B53 Advice on geological features of interest should be sought from English Nature. Further guidance on geological conservation is available in the Appendices to "Earth science conservation in Great Britain" and in "*Reclamation of disturbed land for nature conservation*".

B54 If a mineral working is notified as an SSSI, English Nature can enter into a management agreement with the owner of the land under section 15 of the Countryside Act 1968 or section 16 of the National Parks and Access to the Countryside Act 1949, for the purpose of safeguarding the scientific interest of the site. Under these agreements English Nature takes on some practical aspects of site maintenance and access. In addition section 39 of the Wildlife and Countryside Act 1981 enables the relevant authorities to make management agreements with owners and occupiers of land for conserving or enhancing natural beauty or amenity. In suitable circumstances this power could be used by MPAs to make agreements relating to the management of reclaimed mineral workings. The owners and occupiers of land may incur specific responsibilities under the Health and Safety at Work Act 1974 and the Occupiers Liability Acts 1957 and 1984 in respect of any hazards on their land, and may also have Common Law responsibilities in respect of these. These responsibilities relate to the safety of employees, legitimate visitors, and trespassers, particularly child trespassers, on their land or premises. Any management agreement would need to address these safety issues.

Formal sports facilities

B55 The use of land for formal sports activities will require a separate planning permission where approval for such use was not given as part of the permission for mineral working and reclamation. Planning guidance on sport and recreation activities is contained in Planning Policy Guidance 17: Sport and recreation (PPG17). Where the sports after-use is known even in principle, the planning conditions for the mineral working could allow for appropriate contouring, restoration, and aftercare to establish and sustain an appropriate grass seeds mixture. Guidance on the management of sites used for formal sports activities and on financial mechanisms for achieving long-term management is given in "Amenity reclamation of mineral workings". Nevertheless, if the land is to become a golf course it would be unreasonable to expect the aftercare

condition to be interpreted to require five years of green, fairway and bunker maintenance; or if the land is to become a public football pitch, all that can reasonably be required in an aftercare condition is that the grass should be sustainable.

B56 Advice on local needs and the planning and design of facilities for both land and water-based sport and recreation may be obtained from the Regional Councils for Sport and Recreation and the Sports Council's Sports Development Unit. Advice on tested and recommended grass seed mixtures appropriate to different land-based recreational after-uses may be obtained from the Sports Turf Research Institute and its publications. Where areas are likely to receive heavy wear, the primary requirement will be to manipulate conditions on the site to ensure the survival of hard-wearing species.

Water areas

B57 Man-made inland water areas in Britain are put to a wide range of uses including various forms of water recreation, wetland habitats for nature conservation and education, and water storage and balancing reservoirs. The demands for such uses may be indicated in structure and local plans. Where minerals are worked below the water table and it is not desirable or practicable to fill the void or to consider "low level restoration", permissions will normally include conditions which will enable one or more appropriate water-based after-uses to be established. The conditions will need to be based on information obtained from pre-application site investigations and working and landscaping plans, which may be subject to more detailed schemes submitted and agreed from time to time during the life of the mineral operations. The information may need to include depths and areas of water to be created, hydrology, water quality, bank profiles into the water, creation of islands, prevailing wind direction, preservation and use of soils, the treatment and planting of water and land margins, and subsequent management of the area.

B58 Different water recreational uses have different requirements, whilst water areas for wildfowl and nature conservation again need specific consideration. It will therefore not be satisfactory to propose a scheme which only anticipates in general the creation of a lake which might be suitable for a water recreation after-use or for nature conservation. The dual use of water areas for some form of recreation and nature conservation may often be attractive, but such mixing of uses is in practice rarely compatible unless they can be physically separated within the configuration and area of water concerned. Table 5 summarises some guidance notes on general operational requirements for water-based recreational uses.

B59 Advice on water areas intended for wildfowl breeding and feeding may be obtained from the Wildfowl & Wetlands Trust, British Association for Shooting and Conservation, the Game Conservancy, and the Royal Society for the Protection of Birds; and for nature conservation, from English Nature and the Environment Agency and non-statutory nature conservation organisations such as the Wildlife Trusts Partnership and local Wildlife Trusts.

B60 When imposing planning conditions for water areas, surrounding banks and islands to be formed as a result of mineral working, it will be important to take account of the available powers under the 1990 Act. Formation of a lake to a specified configuration and depth may be properly required under section 70. However, a requirement to allow an excavation to fill with water would not come within the definition of a restoration condition in Schedule 5, paragraph 2(1) and (2), so this could not provide the basis for an aftercare condition (or scheme) for the water areas. Whilst, therefore, use of soil materials on banks and islands would provide the basis for requiring aftercare for these areas for amenity use, it may be more appropriate to use planning obligations,(e.g. under section 106 of the 1990 Act) to achieve reclamation and initial management of water areas - particularly for wildlife and nature conservation. Consideration should also be given to incorporating appropriate measures for water areas into a management plan which then forms part of a planning obligation between the MPA and the applicant and/or landowner.

Table 5. Guidance notes on operational requirements for water based recreational uses

Sport	**Type of bank**	**Minimum depth of**	**Preferred shape of water**	**Approximate minimum size of water**	**Bankside facilities**[1]
Canoeing	No special banking needed. Provision for easy launching and beaching of canoes.	1.5 metres	Rectangular. Competitive canoeing requires length of 1200 metres.	7 hectares	Space for canoe storage and repair. Clubhouse.
Power boating	Well protected banks, preferably strengthened against wash. Norfolk Reed or Reed Mace planted adjacent to the bank as a bank wash stopper to limit bank erosion.	2 metres	Triangular. Each leg of triangle course should be at least 400 metres.	15 hectares	Concrete hardstanding for launching boats. Space for storage and repair of boats. Clubhouse. Good access. Mounds around site to protect from noise.
Rowing	No special banking needed. Should have a launching platform.	1.5 metres	Rectangular. Minimum length for competitions of 1200 metres.	7 hectares	Boathouse for storage and repair of boats.

Sailing	No special banking required. If possible angled earth banks should be provided. No trees should be planted on the bank nearest the direction of the prevailing wind[2]. Launch platform.	2 metres;		20+ hectares	Jetties and/or concrete ramps for launching boats. Clubhouse. Good access. Boat storage.
Water skiing	Banks strengthened against problems of wash. The provision of a shallow water area shelving rapidly at the launch platform.	2 metres	Rectangular.	15 hectares	Jetties, launching, ramps. Boathouse. Clubhouse. Good access.
Windsurfing	No special banking. needed. Provision for easy launching and beaching of sail boards. No trees to be planted on the bank in the direction of the prevailing wind[2].	1.5 metres		11 hectares	Clubhouse. Good access. Space for sail board storage.
Angling	Fishing position more than 1 m from water surface. Banks preferably reinforced against erosion; and permanently installed positions.	2 metres	Diverse with embayments.	2 hectares	Clubhouse preferable.

Notes
1 Such facilities will need planning permission and are not part of restoration and aftercare.
2 In many inland areas, prevailing wind direction is often statistically ill-defined.

Built development

B61 As most mineral workings are located in rural areas, the majority of reclamation is to agriculture, forestry or amenity uses. However, 10% of all reclamation is to some form of built development. Development plans should identify where this after-use is appropriate and draw attention to the considerations which would apply to ensure that working are restored to a condition suitable for the proposed use. Specialist advice should be sought on the engineering implications of such proposals. As explained in the main text (paragraph 24), separate planning permission is required where sites are to be built upon.

Annex C

Annex C : Characteristics of the main types of surface mineral workings and spoil disposal areas in England and the implications for reclamation

Introduction

C1 Mineral workings can vary considerably in the scale, method and timescale of working, and the nature and quantity of material available for reclamation. Certain types of surface mineral workings or areas affected by the surface disposal of spoil arising from mining and quarrying can create particular problems for effective site reclamation and/or require the use of specialised techniques. Conversely, mineral extraction can provide opportunities for landscape enhancement, the reclamation of derelict land and the creation of new habitats. The importance of many older sites for cultural, heritage and nature conservation reasons is increasingly being recognised while plans to make increasing use of mineral wastes as secondary aggregates need to be considered alongside landscape and reclamation objectives.

C2 The Department has addressed these issues by commissioning a series of research studies which have assessed the nature and characteristics of particular types of mineral working, and provided guidance on the planning and technical requirements for their effective reclamation. The following section summarises the characteristics of the main mineral types worked in England, and provides guidance on their reclamation. A list of relevant published reports is given in Annex E.

Sand & gravel

C3 Sand and gravel workings are the most numerous and extensive forms of mineral extraction in England, accounting in 1994 for 35% of all sites, and 30% of the total permitted area. Most production exploits drift deposits in river valleys or glacial and fluvioglacial gravel deposits. The water table often lies close to the land surface, and sites may be worked either in a wet or dry state.

C4 The drift deposits are usually relatively thin and uniform which allows for progressive working and reclamation, often within a short period of time. In the six year period 1988 to 1994 almost 8,000 hectares were reclaimed, principally to agriculture (60%), and amenity uses (31%).

C5 The Triassic Sherwood Sandstone of the Midlands is the chief source of sand and gravel won from formations older than the Pleistocene. Building or concreting sands are worked from some of the Mesozoic or Tertiary formations, especially the Cretaceous Lower Greensand. All of these sites are deeper quarries, with characteristics for reclamation which differ from workings in drift deposits. Progressive reclamation is, for instance, often less feasible.

C6 The restored landform and choice of after-use will usually be site specific. The ratio of mineral to overburden is usually high, which means that the importation of fill is necessary if the land is to be returned to its original levels. In some cases this may not be appropriate or necessary (see paragraphs A8-A28).

C7 Much of the sand and gravel resource is overlain by relatively thick and high quality soils, which enables high standards of reclamation to a range of after-uses to be achieved. Where sites overlie the best and most versatile agricultural land, it is usual for them to be reclaimed to agriculture either at a lower level or with imported fill. Research undertaken for the Department ("The Reclamation of mineral workings to agriculture"), has identified that sites can often be reclaimed to their original agricultural land quality if appropriate techniques are used throughout the life of the site. The most common limitation to agricultural land quality was identified to be droughtiness due predominantly to the coarse textured soils commonly overlying sand deposits, and compaction within the restored profile. Droughtiness can be minimised to some extent by ensuring soils are well managed so as to maintain and promote a good soil structure and water holding capacity, and by ensuring that soil depths are adequate to store sufficient moisture for use by plants during dry periods. At some sites very stony soils can also be a limiting factor.

C8 Many sites with a high water table are allowed to fill with water following extraction and are used for the creation of habitats for wildlife. In these circumstances careful consideration should be given to the contours and gradients of the base of the working. The provision of features such as islands, shallows and gently sloping shores can greatly enhance the potential for habitat creation. Other sites are used for water based recreation or water storage. More detailed guidance is given in Annex B, in "Amenity reclamation of mineral workings" and in "Reclamation of damaged land for nature conservation".

C9 The restoration of sand and gravel sites for forestry has been particularly common on some of the plateau gravels in Southern England, which were under woodland prior to extraction. The quality of some of these soils is relatively poor, and much research has been undertaken by the Forestry Commission and others on methods to establish trees on such sites. Further details are given in Forestry Commission Bulletin 110. This guidance is also appropriate for amenity tree planting on such sites.

Opencast coal

C10 The opencast mining of coal is used to work seams which are too shallow or too thin to be worked safely and economically by underground mining. Opportunities exist to work coal left from earlier mining, including for example pillar and stall systems. In a number of cases opencasting provides an opportunity to remove coal from beneath derelict land, resulting ultimately in the return of the land to a beneficial use.

C11 The relatively high economic value of the mineral makes it cost-effective to work seams overlain by thick layers of overburden. Estimates vary but it is not uncommon to remove 20-25 tonnes of overburden for each tonne of coal extracted. During the life of the site there is therefore a need for the storage of topsoil, subsoil and large volumes of overburden. As indicated elsewhere the volumes involved can be minimised by the progressive working and reclamation of the site.

C12 In many cases the high ratio of overburden to coal allows the site to be infilled to pre-working levels without the need for importation of additional fill materials.

C13 Between 1988 and 1994, over 4,000 hectares were restored following opencast coal extraction, of which two thirds were reclaimed to agriculture. A further 16% were reclaimed for amenity uses including nature conservation.

C14 Heavy soils predominate over many opencast areas and soil wetness tends to be the main limiting factor affecting Agricultural Land Classification grade. This can cause difficulties when handling soils, as there may be limited opportunities during the year when the soils are in a suitably dry condition. However, with restoration of appropriate gradients and installation of under-drainage, such land can be restored to its original grade.

C15 Because of the heavy texture of soils often associated with opencast sites, reclamation schemes should aim to install a drainage system as soon as possible following soil placement. This increases the opportunities for cultivating the soil and establishing vegetation. The initial drainage may be temporary, and a more permanent scheme may need to be installed during the aftercare period.

C16 Opencast sites are often relatively large, and can provide opportunities for a range of after-uses such as areas for agriculture, amenity or commercial woodland, and nature conservation within one site.

C17 The Countryside Commission have published guidance on the landscaping and restoration of opencast coal sites in "Opencast coal mining".

Hard rock quarries

C18 These include igneous rock, limestone/dolomite and sandstone quarries. The size of many of these quarries and the timescale over which they are worked can present difficulties for effective reclamation. This is often compounded by limited availability of fill material and/or a shortage of soil; physical constraints include the level of the water table; the amount of and access to, level floor areas in dry quarries; and sidewall stability.

C19 Quarries can be very prominent in the landscape, while the stability of their faces can present health and safety risks. Reclamation should therefore aim to reduce the risk of accident while providing a visually acceptable landform that is appropriate for its intended long-term use. Where possible, planning permissions for sites should

allow for the phased working and restoration of areas of extraction. This may be difficult to achieve with some sites where extraction proceeds in a vertical rather than horizontal direction, while at others, particularly where the quality of stone varies across the site, some faces need to be kept 'open' to allow intermittent extraction as demand fluctuates.

C20 While the final site reclamation and possible after-uses should be considered at the time of the planning application and appropriate provision included in the conditions, it is likely that most schemes will require updating and amendment during the life of the working. Planning permissions may allow for this by requiring a general treatment scheme to be prepared before extraction starts, to be followed up by submission of detailed schemes for particular phases as they are completed; and by setting a timescale for submission of the final reclamation plan which is commensurate with the duration of the mineral planning permission. For long-life quarries, wherever the upper faces will be visible for many years prior to completion of mineral working, it will be useful to consider, where appropriate, a condition requiring progressive reclamation of finished upper faces and benches.

C21 A number of techniques are available for reducing the visual impact of large quarries. Many involve the establishment of vegetation directly onto the rock face, or the use of selective blasting to reduce the face angle, create scree slopes and to provide a more natural appearance. Where fill materials are available, it is possible to fill all or part of a site, including total or partial masking of the quarry margins. The Department has funded research on one form of selective blasting and habitat creation known as 'Landform Replication', the interim results of which have been published in "Landform Replication as a technique for the reclamation of limestone quarries. A progress report". This technique requires a multi-disciplinary approach to quarry reclamation including application of a series of geo-engineering and ecological reclamation strategies, and aims to construct a landform/vegetation assemblage which resembles that in the unexcavated landscape around the quarry. The final results of the research will be published shortly. A short review of the wider range of techniques which have been used to revegetate quarry faces, and guidance on their application is provided in "Amenity reclamation of mineral workings".

C22 Rock-fall can be a hazard to people and livestock and can destroy or disturb revegetated areas lower down the face. This may require initial stabilisation measures, but faces may also become unstable after weathering. Careful recording and monitoring of excavated quarry faces and slopes should be undertaken on a regular basis, using appropriate measures, such as 'scaling', where necessary. A review of technical, operational, administrative and legal aspects of the stability and hydrogeology of deep mineral excavations has been published in "Technical review of the stability and hydrogeology of mineral workings", as has a handbook providing guidance on the investigation, assessment and inspection of excavated quarry slopes "Handbook on the hydrogeology and stability of excavated slopes in quarries".

Other types of surface mineral working

C23 There are a range of other types of minerals worked from surface excavations in England, including chalk for cement and other uses, industrial sand, clay for bricks, ceramic wares and cement, gypsum and peat. The advice in the main part of this MPG and in Annex A and Annex B should enable appropriate planning conditions to secure reclamation of most of these sites to be prepared and implemented. In addition, the Department has issued specific planning guidance, including on reclamation, for certain of these materials. MPG10 "Provision of raw materials for the cement industry", contains guidance on reclamation of relevant workings and preparation of quarry plans, particularly for chalk and limestone sites (paragraphs 64-69 and Annex C). The reclamation of peat workings presents a number of special problems. These are dealt with in Minerals Planning Guidance 13: Guidelines for peat provision in England, including the place of alternative materials (MPG13) which contains guidance on rehabilitation of cut-over lowland peat sites. Mineral Planning Guidance 15: Provision of silica sand in England (MPG15) provides specific guidance on industrial sand.

Colliery spoil

C24 Colliery spoil or minestone is the waste material that is extracted while mining coal. Land based tipping accounts for over 90% of the total annual disposal of spoil nationally. Most of this is tipped in spoil heaps usually close to the colliery. A small proportion is used in local land reclamation schemes, for example, for filling of old mineral workings and increasingly as a secondary aggregate. Nationally, over 20,000 hectares has been affected by tipping, making it one of the most significant minerals-related impacts on land use in the country. Nevertheless, by 1994, over 10,000 hectares had been reclaimed much having been achieved using the Department's Derelict Land Grant (DLG). Some spoil tips may be regarded as a resource, which may be left for utilisation or treated temporarily for later use. Some may also have developed important semi-natural habitats following natural colonisation or may contain scientifically valuable objects such as fossils. Many spoil heaps have benefited from permitted development rights under the old General Development Order, and are subject to no provisions for reclamation. Changes originally made in the 1977 and 1988 General Development Orders and now contained in the Town and Country Planning (General Permitted Development) Order 1995, which require the submission of a waste management scheme, together with new restoration obligations in the Coal Industry Act 1994, should ensure that all future colliery spoil tipping is subject to proper planning control.

C25 Tipping practices have changed significantly in recent years, largely in response to the need to achieve higher safety standards. Older tips are often conical or irregular in shape, with high profiles. Their reclamation normally involves some degree of regrading and in some cases considerable movement of spoil is necessary. In contrast, modern tips usually have lower, less intrusive profiles making reclamation and landscape compatibility simpler. Modern tips are also far less likely to spontaneously ignite, which has in the past resulted in damage to, or loss of, established vegetation.

C26 A better understanding of the main physical and chemical characteristics of colliery spoil and improved methods of ameliorating problems, has led to considerable improvements in reclamation practices in recent years. However, sward regression has continued to be a problem on some reclaimed tips, particularly where the spoil material is pyritic, but also where inappropriate handling of soil and/or spoil materials during restoration has caused excessive compaction within the rooting zone. Where pyritic spoils are identified the reclamation scheme and subsequent management should aim to prevent long-term problems, usually by separating the spoil from the vegetation using 'clean' spoil or soil, or by neutralising any acid that develops.

C27 Modern sites are more likely to have soil materials available, and the technical problems of actually establishing and maintaining vegetation should be less. Where soil cover is not available, or its use is considered to be inappropriate, it is important that the surface layers of spoil are placed so as to avoid compaction, while sufficient measures are carried out to control drainage and acidity. The incorporation of humified organic matter, may also assist in the development of a suitable rooting medium. Recent research also suggests that the incorporation of sewage sludge may help to reduce the incidence of acid generation. However, the long-term success of this approach has yet to be determined.

C28 Planning conditions should aim to ensure that the standards of reclamation to be achieved are appropriate for the intended after-use. On particularly pyritic sites, where repeated remedial treatments are likely to be necessary, careful consideration should be given to the choice of after-uses, both to ensure that vegetation can tolerate conditions, and that access to the site and the application of remedial treatments are not hampered by the mature vegetation (ie trees). However, where possible, operators should identify and select non-pyritic materials to use as soil making materials.

C29 Drainage and run-off from pyritic spoils can cause contamination of the surrounding area as well as on-site. There has been an increased use of reed beds and other technologies to improve the quality of water leaving a site, before it enters surface water courses. The Environment Agency should be consulted where there is potential risk of contamination of surface or ground waters.

C30 Further guidance is available in "*Restoration & revegetation of colliery spoil tips and lagoons*".

China clay

C31 The extraction of china clay is confined to Cornwall and Devon, where in localised areas (St. Austell in Cornwall and Lee Moor in Devon, in particular) it is the predominant use of the land. Clay production has occurred for over 150 years, but in the last 20-25 years there has been a progressive and substantial change in the scale of mineral extraction. The industry now produces in the order of 25 million tonnes of waste each year, most of which is tipped outside the limits of the pits. Most of the 3,000 hectares of land already affected by pits, tips and lagoons in the St. Austell area are covered by old permissions with limited provisions for reclamation. In contrast, the Lee Moor area is covered by more modern permissions, which provide a framework to contain tipping to discrete areas and to provide conditions for more sustainable after-uses of the land.

C32 The Department commissioned a research study to review the practices and information on the landscaping and revegetation of china clay waste tips ("Landscaping and revegetation of china clay wastes"). The report recommended the need for more long-term and broadly based reclamation and landscape strategies for the area, which took account of existing tips and future tipping requirements, and considered both long-term objectives and short-term improvements to the local environment. To ensure the long-term success of the reclamation it was proposed that a land-use led approach to the design of tips was necessary.

C33 A range of constraints to reclamation were identified, including:

- the continued need to dispose of very large volumes of waste, with limited opportunities for back-filling voids;
- the presence of many old, steep angled tips which limit the possibility of overtipping or regarding, but which provide prominent unnatural landforms, which are unsuitable for many after-uses;
- the physical and chemical characteristics of the waste, the local climate and the degree of exposure on some sites restricting vegetation establishment and development, and encouraging erosion;
- the presence, within and adjacent to the tipping areas, of locally important semi-natural habitats, and areas of interest developed following natural colonisation of older tipped areas;
- the presence of settlements within the tipping areas.

C34 For new tips, it should be possible to identify appropriate after-uses within the tipping areas and design the tips accordingly. For existing tips, the after-uses will be constrained by the opportunities to alter the landforms. The ability to achieve a specific after-use depends in part on the viability of the vegetation, which is influenced by site and climatic conditions. Table 6 provides a summary of after-use options, while Table 7 summarises the options for landscape improvements of the wider area.

C35 The china clay industry and MPAs concerned have accepted the main recommendations from the study, and the Government looks to them to implement these recommendations through phased reviews of existing old mineral permissions, in any new proposals for working and tipping, and in statutory plans.

Slate

C36 Slate workings and waste tips are not extensive in England, being largely confined to Cumbria and Cornwall. However, they are usually found in scenic rural areas, often in or visible from National Parks and Areas of Outstanding Natural Beauty. Most of the permissions are old and have no provisions for reclamation. A number of abandoned sites have been reclaimed in the past using the Department's DLG.

C37 Slate production creates vast quantities of waste material (19 tonnes of waste per tonne of usable slate), which is usually tipped adjacent to the working area. It is generally impractical to backfill quarry holes, and in most cases it is therefore necessary to reclaim the spoil in situ. Soil is rarely available in sufficient quantities to cover the spoil, and where vegetation establishment is required it is usual to plant directly into the spoil material. The physical and chemical characteristics of the spoil limit its suitability as a growing medium (in particular, a very course texture, extremely slow weathering rate, and minimal nutrient content). In the absence of soil, surface preparation techniques usually include the crushing of the surface slate waste to produce fine fragments, and the use of organic mulches. The choice of vegetation types should be influenced by the intended use of the site and site factors and in particular tolerance of climatic and substrate conditions, and compatibility with the surrounding

vegetation and landscape.
Table 6. After-use options for china clay waste tips

Use	Suitable for tip types*				
	Old	Csa	Tob/St	GT+	GT-

Annex D

Annex D : Financing of restoration and aftercare

General

D1 Government policy on the financing of reclamation is set out in paragraphs 86 to 96 of the main text. This makes it clear that it is the responsibility of the mineral operator to secure the restoration and aftercare of the site within the terms of the planning permission. Mineral companies, or other applicants, should demonstrate to the MPA, therefore, that financial, as well as technical, capabilities are sufficient to undertake the proposed restoration and aftercare. The need for this arises in part because, except where there will be progressive reclamation, the work required is likely to take place after the revenue-generating extractive operations have been completed.

D2 The main text also makes clear that MPAs should not seek financial guarantees, prior to the grant of planning permission, except in the exceptional circumstances listed in paragraphs 94 and 95.

D3 This policy is based on the recommendation of consultants in their report to the Department,"*Review of the effectiveness of restoration conditions for mineral workings and the need for bonds*" which is referred to in paragraph 87 in the main text. The consultants also recommended that mineral planning guidance should be provided on the circumstances under which it would be appropriate for a planning authority to reach an agreement with an operator in relation to financial guarantees, together with advice on the forms of guarantee and checks that the local authority might make on the financial institutions offering guarantees. This is to ensure that future agreements, where they are appropriate, are put onto a consistent basis, to avoid discriminatory, costly and irrelevant bonding arrangements coming into effect.

D4 This Annex therefore provides guidance on two separate aspects of the financial provision for reclamation. The first indicates the main options which mineral companies may already use, or may wish to consider, for financing reclamation. The second, in response to the consultant's recommendation, considers specific types of securities that may be suitable as financial guarantees in the exceptional cases that they are appropriate. Some of these schemes may also be suitable for securing long term funding of the site after-use. Further details on the benefits and constraints of some of the funding schemes, can be found in the consultant's report.

Financial provisions by mineral companies for restoration and aftercare

D5 It is reasonable for the MPA to ask about an applicant's plan for the development, extraction and reclamation of the site, and for the applicant to be able to demonstrate the ability to fulfill the likely conditions which would be imposed on the grant of planning permission. It would not, however, be part of an MPA's function to assess the viability of an applicant's plan in relation to the potential profitability of the proposal.

D6 An applicant may offer or indicate some specific ways of assuring the availability of financial funding for restoration and aftercare.

D7 Options for financial provision to cover restoration and aftercare costs, which may be practised by mineral companies, may include:

i. making general provision in advance covering all company sites;
ii. specific provision made in advance for each site;
iii. full provision made when site development commences;
iv. provision made on an incremental basis as sites are developed.

D8 These options will have different impacts on the amounts of money which would be 'tied up' throughout the operational life of a site. The choice made will therefore, in the first instance, be for the applicant or operator. The following paragraphs set out the most usual options.

Mutual funds

D9 This would be a guarantee scheme covering several operators where risks are spread and where the group offers security. The only current example in the British mineral industry is the Sand & Gravel Association (SAGA) Restoration Guarantee Fund which was set up in 1974. The fund has a number of conditions attached to its use,

and can in effect be called upon solely in the event of financial failure of a SAGA member and which results in failure to comply with the restoration requirements of an MPA. The Confederation of Coal Producers are seeking to set up a broadly similar system for opencast coal producers (Confederation Guarantee Scheme).

Internal - provision in accounts, or sinking fund

D10 A company may have a policy of setting aside a sum of money in a sinking fund, perhaps based on an "internal levy" of the output of a site, that will build up as a site is developed and which will cover the estimated restoration and aftercare costs. In other cases there may be a more general provision in the company's accounts to meet future liabilities. The sinking fund offers a regulator greater assurance since it should be represented by specific cash or investment.

Internal - self-insurance

D11 Some companies are sufficiently large, and of a credit-worthiness, to undertake self-insurance in one form or another, including by parent company guarantees. In such cases there may be a separate evaluation of performance and risks.

Coal mining operations

D12 Under Section 2(1)(b) of the Coal Industry Act 1994, it is the duty of the Coal Authority to carry out its function of licensing persons to carry on coal-mining in the manner it considers best suited to ensure, so far as practicable, that licensed persons are able to finance those operations and to discharge the liabilities arising from them. Such liabilities include restoration and aftercare of sites, in addition to subsidence, drainage and sealing of adits."Coal-mining" under the Act includes opencast and underground operations and depositing spoil from any associated activities, including drainage.

Financial guarantees

D13 The main text emphasises that financial guarantees should only be sought in exceptional circumstances. paragraphs 94 and 95 refer to these limited circumstances. Some of these schemes may also be appropriate ways of securing funds, where relevant, for the long-term maintenance of sites beyond the aftercare period. Where these are obtained they will usually form part of a s.106 planning obligation/agreement.

ESCROW Accounts

D14 An escrow account is an independently held account into which the operator would pay, at a rate and to a limit agreed with the MPA, to meet restoration and aftercare requirements. The operator would expect to draw on the account to finance the reclamation work. Calls on the account need to be agreed by both parties or in arbitration. The interest on escrow accounts would normally be paid to the operator, as would any balance when reclamation was completed.

D15 Setting up such accounts can involve complex negotiations and hence add to an operator's costs. In theory, however, if a company is intending to finance restoration and aftercare by the options in paragraph D7 ii, iii or iv it is possible that such funding might be put into an escrow account.

D16 This type of account may be appropriate, attached to a section 106 planning obligation or other form of agreement, to provide a commuted sum to cover longer-term costs of pumping equipment and its maintenance for "low level restoration" or, for example, to contribute to management of some types of nature-conservation after-uses.

On-demand bonds

D17 These are most commonly offered by banks. The bondsman agrees to pay the bond on demand and without proof of breach of contract of condition or any other factor which may be relevant to the two other principal parties. The bank would secure itself against possible payment, normally by requiring the mineral operator to provide full security. Therefore, this type of bond has a high cost to an operator and carries a danger that an MPA might call on it instead of pursuing justifiable enforcement action.

Conditional bonds

D18 These are usually secured against a counter-indemnity in the form of a company written guarantee. The bondsman would not pay any claims until such time as he is fully satisfied that the terms of the bond have been met and the beneficiary (i.e. the MPA) is able to prove its loss. Both banks and the insurance surety market issue such bonds, but the cover is not widely available from the insurance sector.

Financial provisions and landfill

D19 Some planning applications for mineral extraction include proposals to landfill the site with controlled wastes, as part of the proposals for creating a suitable final landform and after-use. MPA's should not seek, through agreements attached to the planning permission, to obtain the financial provision adequate to discharge the obligations arising from the waste management licence. This will be a matter for the licensing authority. Guidance on these matters is given in DOE Waste Management Paper No 4,"*Licensing of waste management facilities*".

Annex E	**Annex E : Bibliography** Primary legislation National Parks and Access to the Countryside Act 1949 Mines and Quarries Act 1954 Countryside Act 1968 Forestry Act 1979 Wildlife and Countryside Act 1981 Town and Country Planning (Minerals) Act 1981 Town and Country Planning Act 1990 Environmental Protection Act 1990 Planning and Compensation Act 1991 Coal Industry Act 1994 Environment Act 1995 Statutory Instruments Town and Country Planning (Assessment of Environmental Effects) Regulations 1988 (SI 1988 No 1199) (as amended) Town and Country Planning (General Permitted Development) Order 1995 (SI 1995 No 418) (as amended) Town and Country Planning (General Development Procedure) Order 1995 (SI 1995 No 419) (as amended) DOE Circulars 25/85 Mineral workings - Legal aspects relating to restoration of sites with high water tables 19/86 Housing and Planning Act 1986 : Planning provisions 15/88 Environmental assessment 16/91 Planning and Compensation Act 1991 : Planning obligations 21/91 Planning and Compensation Act 1991 : Implementation of the main enforcement provisions 28/92 Planning and Compensation Act 1991 : Modification and discharge of planning obligations 29/92 Indicative forestry strategies 11/95 The use of conditions in planning permissions Minerals Planning Guidance Notes MPG1 - General considerations and the development plan system MPG2 - Applications, permissions and conditions MPG3 - Coal mining and colliery spoil disposal MPG4 - The review of mineral working sites MPG7 - The reclamation of mineral workings MPG9 - Planning and compensation Act 1991 : Interim Development Order Permissions (IDOS) Conditions MPG10 - Provision of raw material for the cement industry MPG12 - Treatment of disused mine openings and availability of information on mined ground MPG13 - Guidelines for peat provision in England including the place of alternative materials MPG14 -Environment Act 1995 : Review of mineral planning permissions Planning Policy Guidance Notes PPG2 - Green Belts PPG7 - The countryside and rural economy PPG9 - Nature conservation PPG14 - Development on unstable land PPG17 - Sport and recreation	

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MPG10: PROVISION OF RAW MATERIAL FOR THE CEMENT INDUSTRY - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
3	Introduction Background The Government places great importance on reducing the level of imports of building and construction material, and wishes to encourage domestic production to counter the rising import trend and to provide employment. The Government would also not wish to discourage any export opportunities that might arise. The Government therefore looks to mineral planning authorities to make provision for adequate supplies of raw material for the industry as it endeavours to meet future domestic demand.	Policy statement on supply.
4	…It is important that short term gains should not be achieved by creating environmental debts for future generations. The encouragement of cement production must therefore be balanced against important environmental and conservation interests. The industry are asked to draw up schemes for new quarrying in consultation with the minerals planning authorities which reflect these environmental considerations. Key features of these schemes will be proposals for the working arrangements and the restoration and after-use of both existing operations and new sites.	
26	National Policy Framework Development Plans Development plans provide an opportunity for considering the various options for the future location of mineral workings, identifying preferred locations and the safeguarding of mineral resources for future working. Structure plans should identify areas for mineral development in broad terms. Mineral local plans should identify are as in more detail using Ordnance Survey-based maps.	
27	Development plans should also set out the environmental criteria against which planning applications will be assessed, and policies for the working, reclamation and after-use of mineral working sites. They should also carry forward national policies for landscape and historic or nature conservation and for agriculture which may constrain the choice of sites for mineral working.	
28	In cement-producing areas, development plans should try to assess the likely raw material needs of the industry and having examined the various options which are available identify preferred areas of working which will meet these needs. The forecast of possible future demand for minerals used in the production of cement at annex B should inform the assessment of likely needs. Mineral planning authorities should discuss the choice of sites with the cement industry when formulating these plans. The choice of sites must take into account national policies on landscape and historic or nature conservation and on agricultural land. The plans should also safeguard mineral resources for future working. The plans should set out the development control criteria which new planning applications for mineral extraction must satisfy. They should also set out policies and proposals for the working, landscaping, reclamation and after-use of mineral sites.	Specific policy – first sentence.
31	Supply … Policies for the release of land for mineral working and cement production should therefore balance the need for the development, environmental, social, agricultural and other relevant considerations.	
34	Location of plant and production capacity It follows from this that, in order to maintain and in some cases increase production at existing plants, it will be necessary for the cement makers and the mineral planning authorities to identify areas of working and to safeguard resources reasonably near existing plants, after taking account of all environmental criteria. Proposals will also need to be drawn up for the working, landscaping, restoration and after-use of quarries and plant sites.	Specific policy – Due to the proximity to high capital cost plant.
36	Wharves For their part, planning authorities should make every effort to identify and safeguard suitable locations for wharves in their development plans.	
38	Safeguarding As mineral resources are finite, local planning authorities should make every effort to safeguard in their development plans, and through development control, those deposits which are of economic importance against other types of development which would be a serious hindrance to their extraction. It will usually be necessary to consider need over a much longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the time scales of the proposed mineral working in order to keep blight to a minimum. Where it is possible to extract minerals prior to other more permanent forms of development this should be encouraged unless there are good planning reasons for not doing so.	
39	National Parks The Government's policy on the treatment of applications for mineral extraction in the National Parks is set out in MPG1. Applications must be considered on their merits, but because of the serious impact which mineral working may have on the natural beauty of the Parks, minerals applications in these areas "must be subject to the most rigorous examination". Extraction should be demonstrated to be in the public interest, and consideration of such applications should therefore normally include an assessment of: i. the need for the development, including the extraction of the mineral in terms of national considerations and the impact of permitting or refusing it upon the local economy; ii. the availability and cost of alternative sources of supply; iii. any detrimental effect on the environment and the landscape and the extent to which that could and should be moderated;	

	iv. whether in the light of this assessment the proposed development would be justified in the public interest. (Hansard, House of Commons 9 April 1987 columns-393-394).	
40	Areas of outstanding natural beauty (AONBs) AONBs are designated under the National Parks and Access to the Countryside Act 1949 for the purpose of preserving and enhancing their natural beauty and, as is the case with National Parks, they may also contain valuable chalk and limestone deposits. The Government's policy on AONBs (Hansard, House of Commons 29 July 1982 Cols 707-10) also requires that minerals applications in these areas "should be subject to the most rigorous examination".	Specific policy.
41	National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs) DOE Circular 27/87 (WO 52/87) emphasises that in determining planning applications and drawing up development plan policies planning authorities should take full account of nature conservation factors particularly in areas designated as National Nature Reserves or Sites of Special Scientific Interest for their flora, fauna or geological or physiographic features. It specifies that mineral applications in these areas should be subject to the most rigorous examination. English Nature should be consulted on such applications in England and in Wales consultation should take place with the Countryside Council for Wales. It is recognised that there may sometimes have been cases where mineral workings have been beneficial in the establishment of new wildlife habitats and in the exposure of important geological features.	
42	Other environmentally important areas Planning authorities may designate in their development plans other environmentally significant areas, such as special landscape areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not normally be as high as that given to the statutorily designated areas referred to above.	
43	Ancient monuments and archaeological and other cultural interests Mineral working may damage or destroy irreplaceable sites, structures and remains of historic archaeological interest that are of importance to the national heritage. The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features, and mineral planning authorities should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings when determining applications for extraction. Planning Policy Guidance Note 16: Archaeology and Planning (PPG16), and the CBI Code of Practice for Minerals Operators, underline the importance of identifying as early as possible the likely presence and importance of any archaeological sites liable to be affected by the proposed development. In England this should involve early consultation with the County Archaeological Officer or equivalent (listed in PPG16) and in Wales with the regional archaeological trust. Where remains are scheduled (under the provisions of the Ancient Monuments and Archaeological Areas Act 1979), the Secretary of State for the Environment's consent is needed before works may proceed. Where buildings are listed, listed building consent is required before they may be altered or demolished.	
44	Agricultural land Applications for minerals extraction from land used for agriculture are subject to policies set out in DOE Circular 16/87 (WO 25/87). The Government's overall policy is that when considering the allocation of land for development and in deciding applications for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects. The Circular also recognises that minerals have to be worked where they occur and that mineral workings provide valuable raw materials for industry and can contribute to the rural economy. These factors, and the feasibility of a high standard of restoration, therefore need to be considered in deciding planning applications for mineral working affecting agricultural land. Where minerals underlie good quality agricultural land, the Circular advises that the best and most versatile land is a national resource for the longer term and should in general be protected from irreversible development.	
45	Greenbelt Proposals for mineral working also arise within Green Belts. The government's policy is set out in Planning Policy Guidance Note 2: Green Belts (PPG2). This states that the extraction of minerals need not be incompatible with Green Belt objectives provided that high environmental standards for working and landscaping are maintained and that the site is well restored to an appropriate use.	
47	Specific Impacts Local environmental effects Mineral planning authorities should have regard to all material considerations when determining applications, including these guidelines and relevant policies in development plans. They will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the cement industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them. The industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns of neighbouring sites with regard to site operation and restoration. The objective must be to ensure that any environmental damage or loss of amenity caused by mineral working is kept to an acceptable level.	
48	Environmental assessment Where proposals for development are likely to have significant effects on the environment, the projects concerned will need to be subject to environmental assessment (EA) under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988…	
53	Transport The policy implications for the planning system are that cement plants generate significant amounts of road traffic and that the scope for transferring this to the railways is	Specific policy.

	currently limited. Mineral planning authorities should pay particular consideration to traffic routing when determining new planning applications. The industry should keep under review the options for using rail transport and use it in preference to road transport wherever it is cost effective to do so taking account of the possibility of obtaining grants under Section 8 of the Railways Act 1974 for the construction of rail facilities.	
54	Water interests There is a substantial body of legislation in relation to water supply, pollution and land drainage. Mineral planning authorities and the industry should take into account the need to protect the flow and quality of water supplies in accordance with British and European Community legislation and the need to ensure that changes in the water table as a result of minerals extraction do not cause environmental damage. The National Rivers Authority should be consulted about all new mineral development proposals.	
55	Air pollution Cement production can generate significant air pollution. Under the Environmental Protection Act 1990 the manufacturer of cement or clinker must be authorised by HMIP for integrated pollution control. The operator must demonstrate the use of the best practical environmental option (BPEO). The bulk handling of cement other than at the point of production requires authorization from the local authority. The Secretary of State is issuing guidance notes to be used by both HMIP and Local Authorities to assist in achieving the objectives set down in the Environmental Protection Act 1990.	Specific policy.
57	Landbanks Mineral planning authorities should therefore maintain landbanks of permitted reserves of raw materials for cement plants, providing that the industry come forward with sufficient environmentally acceptable proposals. These landbanks should include the industry's primary materials (chalk and limestone) and also secondary materials (clay and shale). There should be a landbank calculated for each site.	Specific policy.
58	The size of the cement industry's landbank should be directly linked to the scale of capital investment envisaged at a site, for an important feature of the industry is the high cost of investment and the long amortisation periods this entails. Mineral planning authorities should normally aim to maintain cement plant with a stock of permitted reserves of at least 15 years. Where significant new investment (such as a new kiln) is agreed with the mineral planning authority, the plant should be provided with a stock of permitted reserves to provide for at least 25 years. New plant on a greenfield site should be provided with a stock of permitted reserves lasting more than 25 years.	Specific policy.
59	Development plans should normally allocate sufficient land for mineral extraction for cement manufacture to provide for the maintenance of landbanks. Structure plans should set out the general principle of maintaining a landbank for cement plant, and mineral local plans should seek to identify areas where minerals will be worked. Sufficient land should be allocated to maintain this landbank throughout, and at the end of, the plan period.	Specific policy.
60	It should be noted that the general commitment to maintain a landbank does not remove a mineral planning authority's or the Secretary of State's discretion to refuse planning permission for an application should there be overriding environmental objections. Planning applications may also be refused within areas allocated in development plans if the actual development proposal is judged to be unacceptable on environmental grounds.	Could be considered overarching.
63	The Government takes the view that it is in the national interest to maintain and increase cement production, and to increase the scope for competition. Sufficient reserves of minerals should be permitted for this. More permitted reserves are particularly needed where the size of the landbank is below the levels recommended in para 58 above. The cement makers and the mineral planning authorities should examine the feasibility of bringing forward planning proposals for new raw material reserves at the best balance of economic, environmental and social cost. In undertaking this the planning authorities may wish to have regard to the forecast at Annex B of the long term future demand for cement minerals.	Specific policy – although objectives may change.
64	Working practices, restoration, aftercare and after-use The Government looks to the cement industry to adopt working practices in their mineral extraction operations which will cause the least adverse environmental impact and to endeavour to be a good neighbour. The Government has commissioned research into the environmental effects of surface mineral working and this will provide the basis for further advice on good environmental practice for the minerals industry generally. The Government will expect the cement industry to take account of such guidance in operating its present sites and in any future operations.	
65	It is established Government policy that restoration and, usually, aftercare will be required to make mineral workings fit for beneficial after-use and environmentally acceptable. This may include restoration to agriculture, forestry, management for nature conservation, provision of public open space, recreation or other development… … Wherever practicable, mineral planning authorities and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved…	
66	Reinstatement of sites to an appropriate after-use should be an integral part of the planning of raw material supplies for the cement industry. One of the distinguishing features of the industry is the scale and duration of its mineral extraction operations, which can transform the local landscape. For each operational site the industry should therefore draw up a quarry plan, where such a plan is not already in existence, in consultation with the mineral planning authority, for the screening and phasing of working, restoration and aftercare, and the longer term after-use and changes to the landscape. As recognized in MPG 7, whilst final site reclamation and possible after-uses must be considered at the time of a planning application and appropriate provision made in the conditions, it is likely that most such schemes prepared before extraction commences will require updating and amendment during the lifetime of a working. Planning conditions may allow for this by requiring a general treatment scheme to be prepared and agreed before extraction starts, to be followed up by submission of detailed schemes for particular phases as they are completed and by setting a time limit for submission of the final reclamation plan which is commensurate with the duration of the mineral permission.	Specific policy – in part due to probable long life of plant and high capital investment.

67	Restoration of mineral sites may involve infilling all or part of the site with waste material. Where wastes other than those generated through the extraction process are being brought onto the site, the nature of the wastes to be used and the method of working need careful attention at the planning application stage and in obtaining an appropriate licence from the waste disposal authority. The Environmental Protection Act will require authorities to be satisfied that there are no hazards or difficulties arising from the landfill before they can provide a Certificate of Completion. This could involve particularly lengthy periods (20-30 years) but, if landfill gas from any site (eg clay extraction and backfill) could be utilised as a fuel for any adjoining cement plant, the resulting integrated scheme of extraction and use might optimise use of materials and restoration of land. Where the quarry plan envisages an afteruse involving built development, restoration should entail using inert waste to avoid the dangers of methane generation.	
72	Potential for waste disposal and energy conservation However, there needs to be careful control of the overall chemistry to ensure emission limits are not exceeded, and account has to be taken of the production capacities, product quality, energy consumption and capital investment for the safe and practicable burning of potential wastes. Kilns using waste would need appropriate planning and waste disposal licensing consents (these will become waste management licences with the implementation of the 1990 Environmental Protection Act). HMIP should be consulted about proposals for burning wastes.	Specific policy- Para 72. 73 and 74 are specific due to the unique opportunities available for utilisation of waste.
73	… The industry should look for opportunities to dispose safely of waste in this manner.	Specific policy.
74	… Industry will continue to look for other such opportunities.	Specific policy.
79	Implementation and review These guidelines will provide the basic framework for the planning of raw material for cement. They will be taken into account by the Secretaries of State when considering development plans and individual planning applications which come before them for decision.	
80	Mineral planning authorities should have regard to these guidelines in formulating development plans and when considering development proposals. Development plans should recognise the need to make provision for a continuing supply of raw material in the vicinity of existing plant in a manner compatible with other environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied. The mineral plans should also maintain a landbank of permissions compatible with these objectives.	
81	The cement industry has an important role to play in co-operating with, and contributing to, the development plan process. For example, the successful application of landbank policies depends upon the ready availability of information on reserves and production. The industry should endeavour to ensure that proposals for mineral development reflect these guidelines and come forward at the right time. The industry is also responsible for drawing up the quarry plans, in consultation with the mineral planning authorities, for achieving a high standard of operation while the site is being worked and for restoring the site when working has finished.	
82	These guidelines have been based on the best information currently available. They will need updating to reflect changes in demand, technology and environmental standards, but the policy of establishing landbanks will provide flexibility. The guidelines will be reviewed every four years.	

MPG10: PROVISION OF RAW MATERIAL FOR THE CEMENT INDUSTRY - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
1	Introduction Background These guidelines provide advice to mineral planning authorities (MPAs) on the exercise of planning control over the provision of raw material for the cement industry. They indicate the national policy considerations which need to be taken into account in drawing up minerals policies for the industry in their development plans and some of the other factors that need to be taken into account when determining applications for planning permission. They supplement the general guidance contained in the Mineral Planning Guidance Note 1 "General Considerations and the Development Plan System" (MPG 1).	
2	The cement industry is of major importance to the national economy as it supplies an essential product to the construction and civil engineering industries. It is therefore necessary to have an adequate and continuous supply of raw material to maintain production.	
4	At the same time the Government recognises that cement production and the quarrying of raw materials for the industry can have a significant environmental impact and often takes place in areas of attractive and outstanding countryside. The White Paper "This Common Inheritance" stresses the importance of combining economic growth with care for the environment in order to attain sustainable development. ..	
5	With regard to disused sites where there are currently no, or no adequate, planning conditions which would ensure reclamation, the industry and the mineral planning authorities have agreed to cooperate to secure solutions based on one or more of the following options: • to use the review procedures introduced by the 1981 Minerals Act and now contained in S.105 of the Town and Country Planning Act 1990; • to use the opportunities presented by former cement industry land to provide sites for development or recreation, provided any proposals do not conflict with general planning policies; • to assess whether a Groundwork Trust approach would be appropriate; • the use of Derelict Land Grant for eligible sites where the proposals for reclamation are in line with Government policies as set out in Derelict Land Advice Note "Derelict Land Grant Policy" (DLGA 1). These Guidelines are not intended to deal further with such disused sites. However in respect of the Groundwork option it can be noted that the Kent Thames-Side Groundwork Trust was set up in 1990 with support, inter alia, from Blue Circle Industries and with a target area of the northern parts of the boroughs of Dartford and Gravesham.	
6	Aims The aims of these Guidelines are to advise mineral planning authorities about trends in cement production and consumption, and to provide a national planning context for the cement industry. They: i. Briefly outline national trends in cement production and consumption. ii. Set out the national planning policy context for the cement industry. iii. Outline the specific environmental impacts of the cement industry. iv. Identify a policy for the maintenance of adequate permitted reserves of raw materials for the cement industry. v. Establish policies for the working, restoration, aftercare and after-use of the cement industry's quarry sites.	
7	These policy Guidelines apply only to England and Wales, although reference is made to Scottish plant in the maps and tables for the sake of completeness. The Scottish Office is preparing its own policy advice on minerals planning.	
8	The National Picture Production and consumption For most of the 1980's British cement production was in the region of about 12-13 million tonnes a year, roughly in line with domestic consumption. This production level was lower than that achieved in the late 1970's when Britain had been a major exporter.	
9	In 1990 the 3 major manufacturers delivered about 14.5 million tonnes of cement to its British customers, but only around 13.4 million tonnes of this was home produced.	
10	Recent figures confirm that there was a major change in the cement industry's position in mid-1987 and which continued during 1988 and 1989. Domestic demand began to rise, and rapidly outstripped production capacity. The home manufacturers were only able to meet demand by importing large amounts of both clinker, the semi-finished product in the cement manufacturing process, and cement. UK imports by the manufacturers totalled nearly 3 million tonnes, of which 1.8 million tonnes came from imported clinker. In addition to this, independent cement traders imported nearly 1 million tonnes. It remains to be seen whether this surge in demand will continue into the 1990s. Long term forecasts suggest that cement consumption will keep pace with the growth of the economy. Table 1 and Figure 1 shows GB cement production and consumption.	
11	Trade Britain's trade position in cement is illustrated in Table 2 and in Figure 2.	
12	In the late 1970s and early 1980s Britain had been a significant exporter of cement. However opportunities for profitable exports then ceased due to increased production	

at foreign plant closer to the major centres of demand. From 1987 onwards the shortages in domestic production capacity caused the increase in the volume of imports referred to in paragraph 10 above.

13 Increasing domestic capacity by building new plant for the production of cement to meet rising demand is expensive and takes a long time to bring on stream. The current cost of a new kiln to produce 750,000 tonnes of clinker per year, and related equipment, is approximately £100m. It takes at least 3 years to build a new production line once planning permission has been granted. The industry has therefore invested heavily in facilities for the importation of cement in order to help meet this increase in demand.

Figure 1

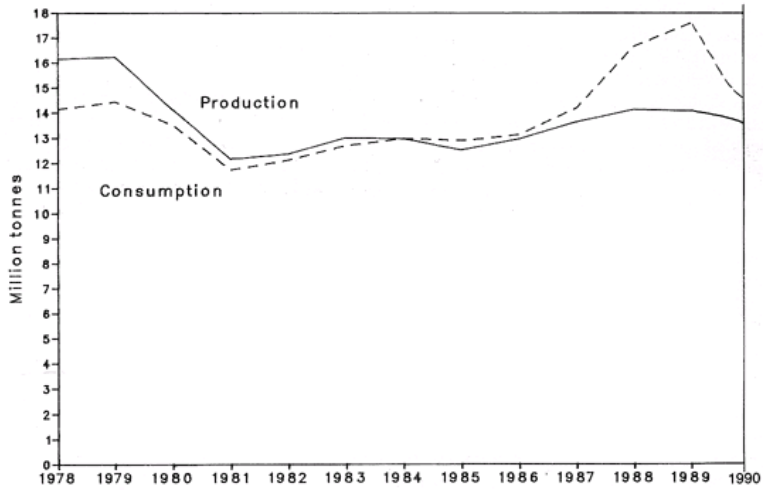


Table 1 GB production and consumption of cement (000 tonnes)

Year	Production[(a)]	Total consumption[(b)]
1978	16,158	14,154
1979	16,233	14,444
1980	14,119	13,500
1981	12,151	11,722
1982	12,362	12,116
1983	13,000	12,694
1984	12,953	12,967
1985	12,500	12,876
1986	12,943	13,120
1987	13,627	14,185
1988	14,114	16,638
1989	14,050	17,568
1990	13,465	14,572

Footnotes

(a) GB Cement Production records only cement from GB-made clinker, and excludes imports of cement by the GB manufacturers and sold under their own labels. It also excludes cement made from imported clinker.

(b) GB cement consumption includes imports of cement and cement made from imported clinker, as well as cement made from GB-made clinker and cement imported by independent traders.

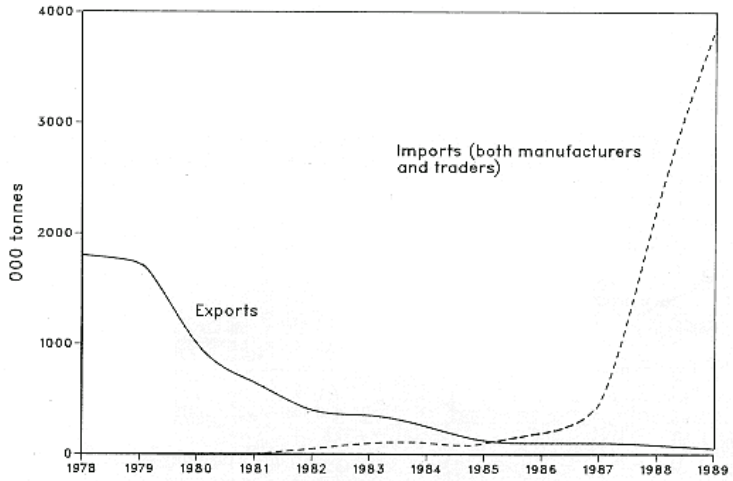
Table 2 GB exports and imports of cement (000 tonnes)

		Imports[a]	
Year	**Exports**	**Independent Traders**	**GB Manufacturers**
1978	1,940	-	-
1979	1,750	-	-
1980	1,041	-	-
1981	661	53	-
1982	455	83	-
1983	387	134	-
1984	255	140	-
1985	136	152	-
1986	95	249	-
1987	105	379	174
1988	113	515	1,672
1989	78	917	2,934

(a) Manufacturers imports include cement made from imported clinker.

Source: British Cement Association

Figure 2



14 This increasing reliance on imports in 1987-1989 within GB has coincided with a growing worldwide internationalisation of the trade in cement. Throughout Western Europe there has been a growth in the amount of cement made in one country but sold in another. There has also been growing reliance on cement imported from outside Western Europe. There has also been a trend towards a rationalisation of cement producers within Europe-though ownership is not a material consideration for planning applications under the GB planning system.

15 Regional trends

Production of cement is concentrated in some regions more than others. Table 3 analyses production and consumption.

16 The South East region is the largest producer and also the largest consumer of cement. Over one-quarter of all British cement is produced in the region, but despite the scale of these operations the industry has not been able to meet all of the region's needs in recent years. One reason for this is that production at the largest plant is constrained by a shortage of permitted chalk reserves. The region therefore imported supplies from East Anglia, the East and West Midlands, and from Europe.

Table 3 Regional production and consumption of cement (000 tonnes)[(a)]

Region	**Production[(b)]**			**Consumption[(c)]**		
	1987	1988	1989	1987	1988	1989
S East	3,926	3,954	3,596	4,283	5,145	5,048
S West	866	984	995	1,518	1,789	1,730
E Anglia	887	904	923	773	879	836
E Midlands	2,245	2,200	2,306	1,277	1,529	1,508
W Midlands	1,416	1,545	1,596	1,186	1,407	1,525
Yorks & Humb	572	704	664	1,079	1,182	1,337
N West	1,150	1,197	1,301	1,021	1,131	1,256
North	665	666	645	623	705	810
Scotland	575	698	778	958	1,099	1,221

Wales	1,162	1,052	1,022	790	936	1,007
Total	13,464	13,904	13,826	13,508	15,802	16,278

Footnotes

(a) Excludes production and consumption of cement made by ICI

(b) Excludes imports of cement by the 3 UK manufacturers and the independent traders

(c) Excludes consumption of cement imported by independent traders.

Source: British Cement Association.

17 The next largest producer region is the East Midlands, which makes substantially more than it consumes. The West Midlands, the North West and Wales produce slightly more than they consume.

18 The South West, Yorkshire and Humberside, Scotland, and to a lesser extent the North, consume more cement than they produce.

19 Geological factors in the location of the cement industry

The availability of suitable raw materials, particularly chalk and limestone, is normally the dominant locational factor in the cement industry Market and transport considerations and the availability and cost of fuel and labour are also important. In order to be considered potentially suitable for use in cement manufacture the raw materials must not only meet fairly stringent quality requirements, but they must be capable of being exploited economically and be available in sufficient quantity to justify the high capital investment required for a modern cement works. Among the factors to be considered in this regard are the geological structure of the deposit, the thickness of overburden, disposition relative to the water-table, cavitation, mineralisation etc. Consequently it is only economically feasible to manufacture cement in a limited number of locations. Rising energy costs further encourage the use of raw materials with a low moisture content. These costs will continue to influence the location of future plant development.

20 Map 1 and Table 4 show the location of cement plant in relation to the main outcrops of chalk and limestone.

Table 4 Location and clinker capacity of cement plant, 1990

Reference no. in map	**Plant**	**Planning Authority**	**Clinker Capacity (000 tonnes)**	**Kilns**	**Process**
1.	Aberthaw	South Glamorgan	552	1	dry
2.	Barrington	Cambridgeshire	500	4	wet
3.	Cauldon	Staffordshire	860	1	dry
4.	Chinnor	Oxfordshire	270	3	wet
5.	Dunbar	Lothian	900	1	dry
6.	Hope	Peak Park	1,300	2	dry
7.	Ketton	Leicestershire	1,200	2	dry
8.	Masons	Suffolk	378	1	wet
9.	Northfleet	Kent	1,905	3	1 dry /2 semi/ wet
10.	Padeswood	Clwyd	500	3	1 dry /2 wet
11.	Plymstock	Devon	357	1	dry

	12.	Ribblesdale	Lancashire	1,300	3	2 wet /1 dry
	13.	Rochester	Kent	630	1	semi-wet
	14.	Rugby	Warwickshire	375	1	wet
	15.	Southam	Warwickshire	405	2	semi-wet
	16.	South Ferriby	Humberside	715	2	semi-dry
	17.	Tunstead	Derbyshire/ Peak Park	214	1	wet
	18.	Weardale	Durham	678	2	semi-dry
	19.	Westbury	Wiltshire	765	2	wet
	Footnotes Cement clinker is converted to cement by inter-grinding an addition of approximately 6% gypsum.					
21	Annex A discusses the geological aspects of cement production in further detail.					
22	National policy framework General considerations As part of the planning process these guidelines should be read in the context of other Government policies for such matters as the protection and conservation of the environment and the preservation of the cultural heritage. The most important of these are mentioned below but it is necessary to refer to the source documents in each case for the full context within which these policies have been developed.					
23	The general policy framework for minerals planning is contained in MPG1. That document provides guidance on the statutory basis for the control of mineral working, the treatment of minerals in development plans and the main policy considerations for different minerals. Planning Policy Guidance Note 1: General Policy and Principles (PPG1) provides further advice on planning policy for both the mineral planning authorities and the minerals industry.					
24	Development plans Policies for the development and other use of land, including the extraction of minerals, are set out in statutory development plans drawn up under the Town and Country Planning Act 1990 as amended by the Planning and Compensation Act 1991. These plans form a framework against which individual development proposals can be considered.					
25	Outside London and the areas of the former metropolitan county councils, the development plan system consists of two types of plan - structure and local plans. Structure plans set out planning policies on matters of strategic importance; local plans formulate detailed planning proposals on an Ordnance Survey map base in general conformity with the structure plan. Local plan coverage for most forms of development is provided by district local plans prepared by district councils, but the local planning framework for minerals is provided by mineral local plans drawn up by the county councils. The 1991 Act has introduced a duty on county councils, and national park authorities, to prepare minerals and waste disposal local plans to complement the policies in their structure plans. In London and the former metropolitan county council areas unitary development plans or UDPs are being prepared to constitute the development plan framework. Part 1 of a UDP contains general policies and is analogous to a structure plan. Part II contains site-specific proposals and is analogous to a local plan.					
29	MPG1 gives further advice on the development plan system. The Department intends to issue further guidance to take account of the new requirements of the 1991 Planning and Compensation Act on the preparation of mineral and waste disposal local plans.					
30	Supply There is no Government target for GB cement production. As explained in paragraph 2, it is essential for the economic well-being of the country that the cement industry is provided with an adequate and regular supply of raw materials so that it can meet the needs of the community.					
31	In general the planning system has operated, and will continue to do so, on the basis that applications for planning permission should be granted, having regard to all material considerations, unless the development proposed would cause demonstrable harm to an interest of acknowledged importance. However, minerals working often causes a greater impact on the environment than other forms of development. There may not be the same flexibility of choice of location as with other forms of development as minerals can only be worked where they occur…					
32	Location of plant and production capacity The high capital cost of investment in the cement industry means that, in the short run at least, investment in new capacity is most likely to take the form of the up rating of existing plant or the creation of additional capacity at existing plant, rather than the building of new plant on greenfield sites. The rationalisation of production capacity into larger more economic units may lead to the closure of some small plants. In the longer term, the possibility of greenfield sites cannot be ruled out.					
33	Map 1 and Table 4 show the location, capacity and type of process of existing plants.					

35 Whether or not an extension to an existing quarry would be less environmentally intrusive than a new quarry will depend upon the circumstances of each case.

36 Wharves
A feature of the cement industry's development in recent years has been the construction of special wharves for the importing of cement. This cement can either be sold directly to customers or can be taken to UK cement makers' plant for bagging. In addition, clinker and bagged cement may be imported through non-specialist wharves. The growth of these wharves reflects the industry's increased dependence on imports to meet customers needs. It also reflects increasing competition as other cement makers and independent traders try to establish themselves in new markets.

37 Map 2 shows the location of these specialist import facilities as at January 1990

46 Specific Impacts
Local environmental effects
Mineral development can have a considerable impact upon the environment. For example, the visual intrusion of a site, the permanent changes to the landscape, the noise, vibration and dust, both from the workings and any associated heavy lorry traffic, can give rise to objections from local communities.

48 Environmental assessment
… This will involve consultations with all relevant bodies with an interest in the environmental effects of the development and the drawing up of an environmental statement. Whether or not a mineral development proposal will warrant an EA will depend upon such factors as size, sensitivity of location, working methods, arrangements for transporting the material to the plant and proposals for restoration, aftercare and intended future uses of the site. Given the nature of the industry's operations, it is likely that major proposals will need to be subject to an EA. DOE Circular 15/88 (WO 23/88) explains the provisions of the Regulations and gives advice on their implementation. However it has been the practice of the industry, for many years, to submit environmental statements with larger planning applications. It is therefore the industry's intention to continue its practice of submitting statements, covering all relevant issues, in support of planning applications. The Government welcomes this.

49 Transport
With the exception of a few sites, there is relatively little movement of raw materials involved in the production of cement. Most of the raw materials are excavated close to the plant. Gypsum is required in too small a quantity to make rail transport an attractive option. Most of the imported clinker used to supplement domestic production comes through ports with no suitable rail facilities.

50 Fuel must be brought to be cement plant in order to fire the kilns. This is predominantly coal. The viability of using rail to transport fuel to the plant will depend mainly on whether there is a railhead at the source, whether colliery or port, and at the plant.

51 By far the largest movements within the cement industry are the delivery of the finished product to the customers. It is generally accepted that it is less environmentally intrusive to move bulk materials like cement by rail rather than by road. However the absence of a rail link between the industry and its customers and the current cost disparity between the two modes where they are both available means that the industry relies mainly on road transport. Where distribution depots are employed, rail transport is often used to transfer cement from the works to the depot. Some plants have rail links, but customers generally do not. Road transport is, therefore, required to a varying extent in all customer sales. The industry utilises rail transport where its costs are comparable or lower than road transport and where distribution by depot is desirable. However where there is a choice of mode, the distances and volumes involved in cement sales, usually 20-100 tonnes over an average of 30-50 miles, do not make rail movement economically viable. Road haulage is better suited to these deliveries as it is more flexible and better able to guarantee the timed delivery service demanded by the industry's customers.

52 Table 5 shows the extent to which plant rely on rail and road for the sale of cement.

Table 5 Mode of transport used in movement of cement from plant, 1989

Plant	**Road**	**Rail**	**Water**
Aberthaw	100%	-	-
Barrington	99.5%	0.5%	-
Cauldon	100%	-	-
Chinnor	100%	-	-
Dunbar	40%	60%	-
Hope	39%	61%	-
Ketton	83%	17%	-

Masons	94%	6%	-	
Northfleet	58%	25%	17%	
Padeswood	97%	3%	-	
Plymstock	100%	-	-	
Ribblesdale	90%	10%	-	
Rochester	98%	2%	-	
Rugby	100%	-	-	
Southam	100%	-	-	
South	100%	-	-	
Ferriby				
Tunstead	100%	-	-	
Weardale	50%	50%	-	
Westbury	85%	15%	-	
Source: British Cement Association				

56	Landbanks Landbank policies which provide the industry with a stock of permitted reserves for a number of years are an important feature of minerals planning. The landbank is a stock of planning permissions designed to provide the industry with a steady and secure supply of minerals so it can respond to demand. They reflect the long lead times that can be involved before any mineral extraction site can become fully productive. They enable the mineral planning authorities and the industry to take a long term view of the industry's needs and the planning implications.	
61	In most parts of the country, mineral planning authority boundaries should constitute a suitable basis on which to base a landbank policy, but mineral planning authorities may choose to adopt either a sub-regional or a sub-county approach as appropriate. Whatever area is chosen for landbank purposes, it is essential that production and reserve data should be available and the industry and mineral planning authorities should work together to facilitate this.	
62	Table 6 shows the estimated size of the landbanks at cement plant at 1 January 1990. The size of each cement plant's landbank is calculated by dividing the volume of its existing permitted dry reserves by a factor representing the number of tonnes of raw material needed to produce a tonne of clinker. The precise figure will vary from site to site. This adjusted figure for the volume of reserves should then be divided by the plant's current clinker production capacity.	
65	Working practices, restoration, aftercare and after-use … Standards of restoration have generally improved over recent years. Continuation of this trend will enable a wider range of sites to be restored to appropriate standards, leading to release of land which has not so far been made available for mineral working. Conversely, if there is serious doubt whether a new extraction proposal can be satisfactorily restored then there must also be a doubt whether permission for mineral working should be given… … Advice on restoration and aftercare is given in MPG 7 "The Reclamation of Mineral Workings", including a general review of the essential technical requirements which need to be considered when planning conditions are drawn up.	
68	In practical terms for at least the next few years, mineral planning authorities and the industry will be dealing with two broad categories of extraction sites. Some sites with relatively recent permissions will have conditions which cater adequately for restoration, aftercare and after-use. Other operational sites which were permitted some time ago may have conditions which are now considered ineffective, or in some cases non-existent, to ensure adequate working restoration and after-use. It will be important for mineral planning authorities and the industry to work together, using both statutory and voluntary procedures available, to achieve satisfactory solutions for these older operational sites. The aim should be to do this within 2 years of the publication of these guidelines.	
69	Further advice on quarry plans in relation to working, restoration, aftercare and after-use is contained in Annex C.	
70	Speeding the planning system The Government accepts that quarrying proposals are often complicated and can arouse local controversy, and it is important that all material considerations receive careful attention. Nevertheless, the Government expects mineral planning authorities to determine applications expeditiously. The industry itself can help to reduce possible delay by discussing its development proposals with the authority, the local community, relevant local bodies such as the County Wildlife Trusts and the appropriate statutory bodies at an early stage before planning applications are formally submitted. Applicants should aim to provide authorities with as much information as possible to help them determine the application. If the authority needs further information, every effort should be made to ensure such requests are comprehensive at the	

	outset. Mineral Planning Guidance Note 2: "Applications, Permissions and Conditions" (MPG 2) provides further guidance on the drawing up and determining of planning applications.	
71	Potential for waste disposal and energy conservation Cement kilns can provide the opportunity for the burning of domestic refuse and industrial wastes along with the usual fuel due to the very high burning temperature (1,450Â°C) and long residence time within the kiln.	
73	Providing these criteria can be satisfied, cement kilns may provide an attractive alternative to the environmental problems associated with other methods of disposal of these materials…	
74	The cement industry can make a contribution to the objective of sustainable development. For example, through the use of pulverised fuel ash (PFA), a waste material produced by power stations. Although it has no hydraulic properties of its own it can be combined with Portland cement to produce a factory-made cement or added as a partial replacement for Portland cement at the concrete mixer. In addition there is potential, in a few cases, for PFA to replace clay as a raw material for cement production. Where the PFA contains a portion of unburnt carbon its use in the cement manufacturing process would help to conserve energy. The use of PFA will depend upon the quality and consistency of its chemical composition, the location of its source, and the cost and reliability of supply…	
75	The cement industry can also use ground granulated blast-furnace slag, a by-production of iron production, in a similar manner to PFA as an additive to the cement or concrete mix. This material does have some inherent hydraulic properties and can be used at higher replacement levels than PFA.	
76	The best available estimate of the use of PFA and slag in the current cement market is 1.6 m tonnes per annum.	
77	With the introduction of Type I and Type II cements in conformity with European standards, there may be a growing use of other fillers such as powdered chalk or limestone. With Type I cement up to 5% of the cement can be made up of such fillers, and with Type IIF the filler can be up to 20%. It is possible that the overall tonnage of these fillers may form 5-6% of cement tonnage within 10 years, but the change to these cements will be gradual.	
78	Cement making is energy intensive and increasing fuel costs have encouraged the industry to become progressively more energy-efficient. One route to achieving energy efficiency has been the use of limestone with its low intrinsic moisture content within the dry process. Where practicable and cost-effective, plants using chalk with high moisture content and the wet process have been converted to the semi-wet process in order to reduce energy consumption.	
Annex A	**Annex A: Geological factors in cement manufacture** A1 The production of Portland cement (so called because of its resemblance to Portland Stone, a type of limestone) requires raw material containing 4 main constituents, namely lime, silica, alumina and iron oxide. A2 Normally these are found in a primary material, chalk or limestone, which provides most of the lime, and a secondary component, clay or shale, which provides most of the silica, alumina and iron oxide (clay and shale are collectively known as mudrocks). In a typical Ordinary Portland cement raw mix, limestone comprises around-80-90% and clay or shale some 10-15%. For each tonne of cement clinker produced, approximately 1.6 tonnes of dry raw materials are required. However, the total quantity of raw materials and their relative proportions may vary significantly depending on raw material, quality, type of manufacturing process, etc. Depending on the exact composition of these components and the type of cement to be produced, it is often necessary to use small quantities of additional raw materials eg sand and iron ore, in order to achieve the correct raw mix chemistry. Gypsum is also added at the cement milling stage in order to control the setting time of the finished product. Chalk A3 Chalk is the youngest of the principal limestone deposits of Britain, found mainly in eastern and southern England. It is normally much softer than other types of limestone and has a higher moisture content. A4 In Britain, the Portland cement industry had its origins in the south-east, where plentiful supplies of easily-won chalk and clay were available, and where the Rivers Thames and Medway afforded cheap transport of fuel (coal) and the finished product. Chalk is still of major importance to the industry today. A5 There are 3 sub-divisions of chalk-Upper, Middle and Lower Chalk. A6 The Lower Chalk is between 45 m and 70 m thick and typically has calcium carbonate contents in the range 63% to 88%. There are no flints in the Lower Chalk and it has a high clay content, particularly towards the base where it overlies the Gault Clay. A7 The Middle Chalk is between 60 m and 70 m thick and typically has a calcium carbonate content in the range 93% to 97%. There are flints in the upper 43 m of the sequence. A8 The thickness of the Upper Chalk varies according to how much it has been eroded. It varies between 85 m and 400 m, and typically has a calcium carbonate content in the range 95% to 98%. There are flints throughout most of the Upper Chalk. A9 Clay for cement works located on chalk may be dug from the Gault Clay which normally underlies the chalk, or from other deposits in the vicinity of the plant. Where the lower parts of the sequence are being worked, all raw materials can be won from one excavation by blending Lower Chalk and Gault Clay recovered together from lower benches with Lower and Middle Chalk recovered from higher benches. Where the upper parts of the sequence are worked, clay may be dug from separate pits in the Gault Clay or from other deposits, eg London Clay, Boulder Clay. A10 As chalk has a relatively high mositure content, the so-called wet or semi-wet manufacturing processes are usually used to make cement from this material.	

Limestone

A11 Limestones (other than chalk) vary from shelly or oolitic deposits (such as the Jurassic Limestones) to more crystalline limestones (such as the Carboniferous Limestones). Calcium carbonate contents for limestones suitable for cement manufacture are typically in the range of 80% in Jurassic Limestones to 98% in the high purity Carboniferous Limestones. Although limestones of various types and ages are of fairly widespread occurrence in the United Kingdom, not all of these are suitable for cement manufacture. For example the Magnesian Limestone and some of the older limestones contain an excess of magnesia which renders them chemically unsuitable, while many of the Scottish deposits are relatively thin and overlain by thick overburden, precluding their economic exploitation.

A12 Limestones are often either overlain, underlain or interbedded with clays or shales, providing the opportunity for recovery of both raw materials at one location.

A13 As limestones (other than chalk) have a relatively low moisture content, the so-called dry or semi-dry manufacturing processes are used to make cement from this material.

Annex B

Annex B: Forecast of Demand for Minerals used in the manufacture of cement

Background

B1 To provide guidance on the long term trend in demand for cement minerals the Department employed independent consultants, ECOTEC Research and Consulting Ltd, to prepare a methodology to forecast demand for the cement minerals over the 20 year period to 2011. Based upon this methodology a range of forecasts of demand for the period 1990-2011 were produced by the consultants in 1990. These forecasts were subsequently revised in 1991 and these are produced below.

B2 The forecasts which have been produced by the consultants essentially represent a trend in possible demand over the period of the guidelines and cannot be used to denote the level of demand over the short term or in any one year or a small group of years nor do these represent targets for production. It must also be recognised that as with all long term forecasts there will be greater uncertainty towards the end of the forecast period. Mineral planning authorities may wish to have regard to these projections when considering planning applications.

The methodology

B3 ECOTEC identified that a major determinant in the demand for cement is the level of construction activity. Long term forecasts of construction activity were commissioned from Cambridge Econometrics for use in the ECOTEC forecasting model.

Cambridge econometrics.

B4 Cambridge Econometrics (CE) regularly produce long term forecasts for the British economy based on the Cambridge Multi-sectoral Dynamic Model (MDM). This is currently disaggregated into 43 sectors of British industry of which construction is one. The forecasts are normally published for 10 years ahead (presently to the year 2000), but the model has been extended to the year 2011 and forecasts to this horizon are produced for some subscribers.

B5 The forecasts of construction activity which CE produce are based upon a detailed examination of long term trends in economic activity combined with analyses of specific major factors influencing construction activity. This includes consideration of the national house building and road building programmes. Their forecasts are the result of a major "bottom-up" exercise combined with strategic judgements about the overall growth rate of the economy. This forecast of construction activity can be measured as construction output or construction investment. For the purposes of the present exercise it was decided to use construction investment (referred to as investment in buildings and works).

B6 CE were asked to produce 3 scenarios of construction activity and these were subsequently updated in 1991. The base forecast represents their most likely estimate of growth. The two other CE scenarios are based on differences in policy assumptions which lead to alternative long term economic growth rates; these are the high and low forecasts.

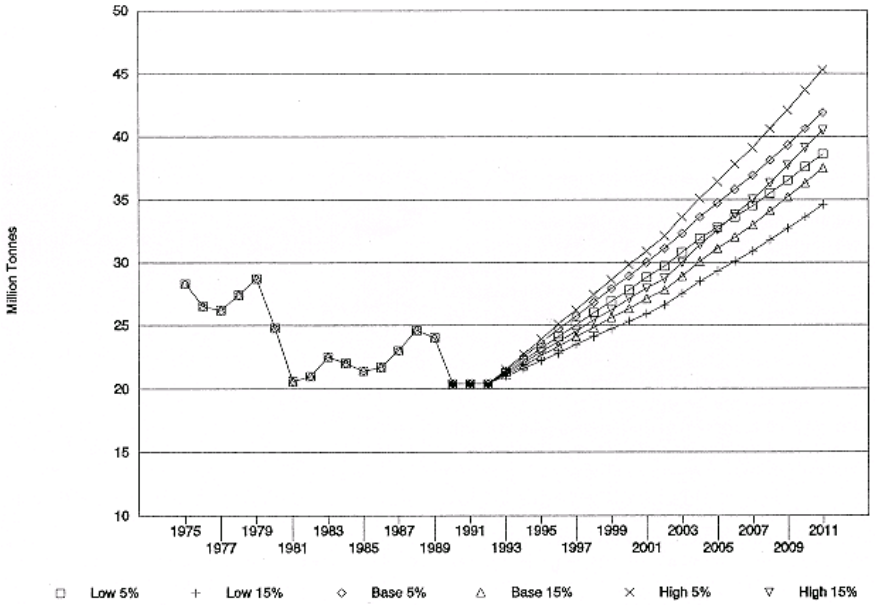
B7 The CE construction activity forecasts below were produced in April 1991. The average annual growth rates for the base forecast for investment in buildings and works are:

	1980-85	1985-90	1990-95	1995-2000	2000-05	2005-11
Investment in buildings & works	1.3	5.5	1.3	2.6	3.3	2.8

B8 The CE high growth scenario is broadly based on assumptions of higher world growth, particularly as a response to European integration; this leads to higher productivity in GB. This indicates that construction investment growth would be 6.7% above the base by 2010. The low scenario is derived from a continued deterioration in GB economic performance with a longer recovery period. This indicates construction investment at 6.5% below the base.

ECOTEC

B9 ECOTEC established that the relationship between the demand for cementitious materials and construction investment was sufficiently strong to produce a reliable regression model to be used in forecasting the future demand for cementitious materials and cement. This model was based on the fifteen year trend 1975-1989. The long

	term projections on construction investment produced by Cambridge Econometrics were used by ECOTEC in producing their forecasts. B10 The ECOTEC regression model also contained a judgement relating to the intensity of use of cementitious materials used per unit of construction activity (measured in constant prices). For the purposes of the forecasting exercise a judgement was made that the trend in intensity of use, identified by the regression analysis over the period 1975-1989, would continue. B11 The projections in demand for cementitious materials required adjustments to produce projections of demand for British made cement. Account was taken of the levels of imported cement used to meet domestic demand. For modelling purposes ECOTEC were advised to assume that imports of cement by 2003 would be either 5% or 15% of demand. It was assumed that the projections would make adjustment to production capacity over 10 years from 1993 to meet the assumptions on import levels. B12 The potential increase in the use of "cement additions" (as referred to in paragraph 77 of the guidelines) was assumed for the purposes of this exercise to grow to 2.3 mtpa in the next 10 years before levelling off. B13 The need for minerals to produce cement was achieved by converting the projected need for home produced cement by a conversion factor of 1.6, ie for every tonne of Portland cement 1.6 tonnes of dry minerals, excluding gypsum, is required. The forecast B14 This methodology produced 6 scenarios with a range of forecasts in the long term trend in demand for cement. The results of the exercise are shown at Figure B1.  <u>Monitoring and review</u> B15 It is proposed that the forecast will be monitored and reviewed every four years. This will ensure that changes in assumptions can be considered. B16 Copies of the consultants' reports used in preparing the long term forecast of demand for cement minerals can be obtained from the offices of the Department, where copies are also available for inspection.	
Annex C	**Annex C: Quarry plans for working, restoration, aftercare and after-use** C1 Quarry working and restoration (including aftercare and after-use), by its very nature, must be site specific. There can be no blueprints applicable to all situations. Nevertheless there are certain principles of good management which can assist in ensuring that a proper balance is achieved between maintaining the environment of local communities close to a quarry and desirable landscape and restoration objectives on the one hand and, on the other, the planning of a quarrying operation which is both practicable and economic. It follows that the ways of securing best practice in the working and restoration of a specific quarry should be considered as an integral part of the preparation of plans for landscaping and quarry development from the earliest stages. This calls for close cooperation between the quarry operator and the mineral planning authority from the outset.	

	C2 In the process of planning the development and subsequent restoration of a quarry to a beneficial after-use, the following principles may usefully be applied to the preparation and implementation of detailed plans. Reference should also be made to relevant published Government and other guidance, particularly some other MPGs and Planning Policy Guidance Notes (PPGs). For sites involving filling with controlled wastes, additional guidance is contained in DOE/HMIP Waste Management Papers. The preparation of a quarry plan C3 Consultation with the mineral planning authority on operational practice; landscaping and restoration should take place from an early stage so that appropriate consideration can be given to its views while the Quarry Plan is in preparation. Informal pre-application discussions can help to resolve potential difficulties (for example, minimising the land area taken for a given tonnage of mineral may conflict with achieving the best ultimate landform) and clarify the requirements for documentation to accompany the planning application. Pre-application discussions can also clarify the requirements of other possible statutory consultees, such as MAFF, the Welsh Office Agriculture Department (WOAD), or the Forestry Commission (where agricultural or forestry after-use is intended). C4 Whilst details of quarry operations, final site restoration and after-use must be considered at the time of planning application, the time scale of a major quarry means that the planning conditions and the related Quarry Plan will probably need updating and amendment (see para 66). C5 Sometimes potential future quarrying areas can be screened by planting, years before detailed quarry plans are prepared or working commences. C6 The Quarry Plan should be long term and phased, incorporating progressive restoration wherever possible. For future and recently-permitted sites, it will normally be linked to relevant planning conditions dealing with stripping and storage of soils, landscaping and restoration and aftercare. The Plan should be monitored to ensure compliance with such conditions, and regularly reviewed to incorporate site experience gained. C7 The Plan should aim to minimise the need to rehandle, or to import into or export from the quarry, topsoils, subsoils and overburden or quarry waste. Soils should be stripped, handled and stored so as to minimise any damage to their structure (see, for guidance, Table 1 of MPG 7). C8 The phases of the Plan, with progressive restoration where possible (including temporary restoration on, for instance, soil or overburden stockpiles) should generally seek to minimise the area of exposed workings. C9 The quarry plan should require that details are kept of the depth, extent and profile of the quarry. Where it is likely or conceivable that the after-use could include built development, infilling materials should be inert and non-degradable in order to prevent the risk of methane generation, and selected and placed to ensure the limited and quick settlement of the fill. C10 Where landfilling with controlled waste is involved, the Plan will need to take account of the requirements of both the planning permission and the site licence. Care will be needed to ensure that there is no conflict or incompatiblity between the two. Any proposal to use controlled wastes in backfilling will also require consultation with the waste disposal authority at an early stage. They will expect to see a working plan for the disposal operations and early preparation of this eases the agreement of a suitable disposal site licence. Implementation of the quarry plan C11 The aim should be to integrate working restoration and landscaping work into routine quarry management operations, thereby avoiding large variations in operational costs and using the general stock of quarry equipment and materials where possible. The workforce should be trained to achieve this pattern of working; and to regard carrying out of requirements for restoration to be of equal importance with meeting output requirements. C12 The Plan may provide for varying of slopes and contours during extraction to soften geometric quarry shapes and to assist in restoration. It may be possible in some locations to replicate naturally-occurring landforms. C13 Where appropriate to the agreed after-use, planting of vegetation should reflect woodland, grassland and flowering plants occurring naturally in the area, and provide wildlife habitats. Since many of the country's limestone and chalk outcrops support limited areas of semi-natural grassland which are of nature conservation value, the Plan may be able to replicate an appropriate plant community in parts of the restored quarry. It may also be appropriate to consider whether any features of geological importance which have been revealed during the quarrying operations can and should be preserved and included in the restoration scheme. C14 Restoration design and methods should take into account possible effects on groundwater and surface water drainage. C15 Vegetation cover in all restored areas should have regular management and maintenance either as a formal aftercare requirement of the planning permission or as part of voluntary "good housekeeping". C16 Quarry operators will normally expect to maintain control of, and responsibility for, their sites until completion of restoration and aftercare; and for any post-closure responsibilities arising from landfills. However in the longer term it may be intended that the land should be leased or sold. Discussions may therefore be needed with agricultural, forestry or nature conservation bodies, and the National Rivers Authority, depending on the actual after-use.	
Annex D	**Annex D: References** Primary legislation Town and Country Planning Act 1990 Planning and Compensation Act 1991 Ancient Monuments and Archaeological Areas Act 1979	

	Environmental Protection Act 1990 Statutory Instruments Town and Country Planning (Assessment of Environmental Effects) Regulations 1988 DOE Circulars 16/87 (WO 25/87): Development Involving Agricultural Land 27/87 (WO 52/87): Nature Conservation 15/88 (WO 23/88): Environmental Assessment Minerals Planning Guidance Notes MPG 1 General considerations and the Development Plan System MPG 2 Applications, Permissions and Conditions MPG 4 The Review of Mineral Working Sites MPG 7 The Reclamation of Mineral Workings Planning Policy Guidance Notes PPG 1 General Policy and Principles PPG 2 Green Belts PPG 16 Archaeology and Planning Derelict Land Advice Notes DLGA 1 Derelict Land Grant Policy Other publications This Common Inheritance (Cmmd 1200) HMSO ISBN 0 10 112002 8 (£24.50) CBI Archaeological Investigations-Code of Practice for Mineral Operators Reports ECOTEC Research and Consulting Ltd: A Forecasting Methodology for the Estimation of Demand of Cement and Cement Minerals Cambridge Econometrics: Forecasts of Long-term Economic Growth and Construction Output Figures Figure 1 - G.B. Production and Consumption of Cement Figure 2 - G.B. Imports and Exports of Cement 1978-1989 (000 tonnes) Figure 3 - Map 1 Sketch map showing distribution of main limestone, dolomite and chalk Resources, together with cement plant Figure 4 - Map 2 Cement Import Terminals Figure 5 - B1 Forecasts of GB Minerals Demand for Cement	

MPG13: GUIDELINES FOR PEAT PROVISION IN ENGLAND - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
4	Introduction It is Government policy to maintain and encourage a competitive UK horticultural industry, while the general gardening public and the landscaping industry require a range of suitable, technically sound products at competitive prices. The Government believe that there continue to be market demands for peat which should, in part, continue to be met by peat extraction from sites in Great Britain.	Specific policy.
5	However, it is also Government policy that peat bogs which retain a high level of nature conservation interest and which represent a part of the country's "critical natural capital", or are important for the archaeological heritage, should be protected and conserved for the benefit of future generations. In accordance with these policies, continued and future peat extraction should be limited to areas which have already been significantly damaged by recent human activity; whilst in line with the "polluter pays principle", planning permissions for all current extraction sites should be updated to modern standards to require appropriate working methods and restoration. In many cases restoration towards raised bog or other wetland habitats can improve the nature conservation importance of a worked out bog.	Specific policy.
7	Policy and objectives General The Government wishes to see indigenous mineral resources developed within its broad objectives of encouraging competition, promoting sustainable economic growth, assisting the creation and maintenance of employment, and protecting the environment. For the economic well being of the country, it is essential that there is an adequate and steady supply of minerals to meet the needs of the community and to foster economic growth. At the same time, the Government recognises that peat is ultimately a finite resource, and that its extraction can have a significant environmental impact (see the UK Strategy for Sustainable Development (Cm 2426 - January 1994)).	
8	Sustainable policies for minerals The implications of sustainable development for minerals planning in general are that avoidable and irretrievable losses of natural resources, such as minerals, should be limited. The objectives of sustainable development for minerals planning are: i) to conserve minerals as far as possible, while ensuring an adequate supply to meet the needs of society; ii) to minimise production of waste and to encourage efficient use of materials, including appropriate use of high quality materials, and recycling of wastes; iii) to encourage sensitive working practices during minerals extraction, and to preserve or enhance the overall quality of the environment once extraction has ceased; iv) to protect designated areas of critical landscape or nature quality from development, other than in exceptional circumstances where it has been demonstrated that development is in the public interest.	National objectives fundamentally underpin national policies. Objectives flow through into actual policies.
9	Nature conservation and biodiversity The Government's objectives for nature conservation are to ensure that its policies contribute to the conservation of the abundance and diversity of British wildlife and its habitats, or minimise the adverse effects on wildlife where conflict of interest is unavoidable, and to meet its international responsibilities and obligations for nature conservation.	
10	An essential task for Government, local authorities, and all public agencies concerned with the use of land and natural resources is both to make adequate provision for development and economic growth and to ensure effective conservation of wildlife and natural features.	
40	Future estimates of demand for peat and alternatives in the UK However, the Government wishes to continue to encourage the development of alternatives to peat for both the less demanding uses and of more specialised alternatives for more demanding uses…	Specific policy.
42	Government policies in respect of peatlands in England The Government's policy for peatlands in England is to: i) conserve a sufficient range, distribution and number of all peatland habitats, representing part of the critical natural capital of the country; and promote the wise use of the wetland resource within the nation's peatland heritage; ii) avoid wherever practicable the destruction of important archaeological remains in peatland; iii) enable the horticultural industry to continue to be supplied with peat; and also to encourage the development and use of suitable alternatives so that market needs can be met in different ways; iv) provide a suitable framework for updating old permissions for peat extraction, especially in respect of rehabilitation of sites.	Specific policy.
43	It is therefore the Government's intention that the future extraction of peat in England from any new sites should be restricted to areas which have already been significantly damaged by recent human activity and are of limited or no current nature conservation or archaeological value. Wherever possible, subsequent restoration of such sites should give priority to wetland rehabilitation and to the enhancement of the nature conservation resource.	Specific policy.
44	Government policy, as agreed in Article 4 of the Framework Convention on Climate Change signed in Rio in 1992 and ratified in 1993, is to adopt policies and take corresponding measures to protect and enhance greenhouse gas sinks and reservoirs. Undisturbed peatlands store large amounts of carbon… … The presumption in this MPG against the exploitation of peatlands which have not been significantly damaged will therefore help to meet the UK's Rio commitment.	Specific policy.
45	The demands of the horticultural user markets should be met by a combination of home produced peat, imported peat, and alternative materials. The Government's	Specific policy.

	commitment towards sustainable development and using resources prudently means that unnecessary wastage of resources should be avoided. Therefore, so far as possible, peat should be used for higher quality markets, while its use should be avoided or minimised where it is either not needed or not the best material, for example for general soil improving, and mulching. There may be further scope to reduce total usage of materials in some sectors. There should also be encouragement to use alternatives where these are suitable and represent other "sustainability" objectives such as recycling and waste minimisation. The range of alternatives suitable for the more specialised uses may increase as further research is undertaken.	
51	Development plans General considerations In preparing Minerals Local Plans and UDPs, local authorities in appropriate areas should take into account the policies contained in this MPG. They should make provision for the conservation of peatland habitats and for identification of specific sites or areas which meet the criteria for selection for future peat working, as explained in paragraphs 52 to 61. Early discussion with the minerals industry and with English Nature (EN) and English Heritage (EH) in the preparation of plans will be helpful.	
52	Policies for nature conservation of peatland habitats and for peatland archaeology in development plans Sites of raised bog and other peatland habitats of key nature conservation importance should be identified in development plans… … Planning authorities should seek advice from EN, who have a statutory role in advising on development plan preparation… … Plans should also identify principal areas of major archaeological significance after consultation with the County Archaeological Officer (see paragraphs 75 to 77).	Specific policy.
57	*Guidelines for development plans* To conserve a full range of peatland habitats and archaeological deposits, peat extraction from bogs which retain a high level of nature conservation or archaeological interest should be permitted only in exceptional circumstances. These circumstances are only likely to arise where it can be demonstrated conclusively that extraction will not adversely affect the habitats, species or deposits being safeguarded. The lowland raised bogs of high nature conservation interest will primarily relate to sites, or areas within bogs, which are defined in the National Peatland Resource Inventory as land-use classes P1-P4, or where secondary peat surfaces contain valuable peat-forming species (see Annex B). These are areas which retain a primary peat surface or include a significant proportion of species characteristic of a lowland raised bog habitat. The Secretary of State would normally call-in, for his decision, planning applications which are likely significantly to affect these classes of raised bog. The advice of EN will be taken into account in deciding which applications are likely to have such effects. It is not expected that such sites would be identified for extraction in development plans. The archaeological value of all peatland is not yet systematically recorded, but EH has supported extensive survey work in several major areas and the results of this, and other, survey work is available in the Sites and Monuments records maintained by County Archaeological Officers, who should therefore be consulted by MPAs during plan preparation.	Specific policy.
58	…When preparing development plans and in considering any applications for their extraction, mineral planning authorities will need to consider the nature conservation interest of these areas or sites. Where the peatland retains a primary surface, which includes a significant proportion of species characteristic of ombrotrophic (bogs) or minerotrophic (fens) conditions, planning permission should, as in the case of raised bogs, only be granted in exceptional circumstances. MPAs should consult EN when determining such cases.	Specific policy.
59	To ensure that as far as possible any areas identified in a development plan for peat extraction can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that sites are:- i) of little or no nature conservation or archaeological value; ii) of economically workable deposits; iii) likely to become available to the minerals industry within the plan period; and iv) are not constrained by other land-use policies (eg high quality agricultural land).	
60	Where the criteria listed above cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. But plans must be clear and unambiguously expressed in accordance with PPG12.	
62	Areas designated for their nature conservation importance *General* Planning authorities must consult EN on any development proposals which are likely significantly to affect these sites (see PPG9 "Nature Conservation").	
67	*Special areas of conservation* … As a matter of policy the Government wishes development proposals affecting potential SPAs and candidate SACs before they have been agreed with the European Commission to be considered in the same way as if they had already been classified or designated…	
68	**Ramsar Site** … The Government has chosen to apply the same considerations to development proposals affecting listed Ramsar sites as are applied to SPAs and SACs (see PPG9).	
69	*Nature conservation , including conservation of the natural beauty and amenity of the land, in development plans* Structure Plans and part I of unitary development plans set out general policies and proposals on key strategic issues, taking account of the appropriate Published: 10 May 2002 national and regional policy guidance. They should identify key sites of nature conservation importance, such as SSSIs, NNRs, SPAs, SACs and Ramsar sites, to establish a strategic framework and exemplify the particular characteristics of nature conservation interest in the plan area in their national and international context.	

	Policies to be applied to these sites should reflect their relative significance and place particular emphasis on the protection of internationally important sites. The detailed policies in local plans and part II of unitary development plans should conform to this framework.	
70	Structure plans, local plans and UDPs must include policies in respect of the conservation of the natural beauty and amenity of the land. Arising from article 10 of the Habitats Directive, regulation 37 of the Habitats Regulations states that such policies shall include policies encouraging the management of features of the landscape which are of major importance for wild flora and fauna. Suitable planning conditions and obligations may promote such management (for further advice see PPG9 "Nature Conservation").	
71	National parks , and areas of outstanding natural beauty (AONBs) Planning Policy Guidance Note 7 - "The Countryside and the Rural Economy" (PPG7) provides detailed Government planning policies for development in National Parks, the Broads and AONBs. The same policies apply to the New Forest Heritage Area. The Government considers that major developments should not take place in these areas save in exceptional circumstances. Because of the serious impact that mineral developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all mineral developments should be demonstrated to be in the public interest before being allowed to proceed.	
72	Consideration of mineral applications in such areas should therefore include an assessment of: i) the need for the development in terms of national considerations of mineral supply; and the impact of permitting the development, or refusing it, on the local economy; ii) whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iii) any detrimental effect of the proposals on the environment and landscape, and the extent to which that should be moderated; iv) in the case of extensions to existing workings, the extent to which the proposal would achieve an enhancement to the local landscape.	
73	Greenbelt Proposals for mineral working also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance Note 2 -"Green Belts" (PPG2). Mineral extraction need not be inappropriate development in Green Belts; it need not conflict with the purposes of including land in Green Belts provided that high environmental standards are maintained and that the site is well restored.	
76	Archaeological and other cultural interests The peat industry should, wherever practical, ensure that important archaeological and historic remains or features are physically preserved, and MPAs should have regard to the desirability of preserving the wider historic landscape (as defined in PPG15, paragraph 6.40) and of the archaeological heritage when determining planning applications… … There should be early consultation with the County Archaeological Officer (listed in PPG16). Where physical preservation is not practical, MPAs should ensure that appropriate provision is made for the recording of archaeological remains, the conservation of significant artifacts and the publication of scientific results.	
77	Some of the most important sites in peatland may be scheduled as ancient monuments (Ancient Monuments and Archaeological Areas Act 1979), in which case scheduled monument consent (SMC) from the Secretary of State for National Heritage, who is advised by EH, must be obtained before any work can commence…	
78	Agricultural land … The Government's policy, as set out in PPG7, is that the best and most versatile agricultural land is a national resource for the future and considerable weight should be attached to protection of such land against irreversible development…	
79	… Therefore, when considering the allocation of land for mineral development and in deciding any application for planning permission affecting agricultural land the agricultural implications must be considered together with the environmental and economic aspects, and the feasibility of a high standard of restoration.	
81	Forestry … The scope of the Government's forestry and environmental policies for woodlands includes encouraging the establishment of new woodlands which enhance the character and appearance of landscapes and promoting the restoration of derelict land to woodland.	
83	Other developments affecting peatlands Careful consideration should be given to the need for any other types of development to take place on peatlands…	
91	Treatment and reviews of existing permitted extraction sites Where an existing site under consideration forms part of a raised bog which also retains areas of nature conservation or archaeological importance, there should be appropriate safeguards to minimise the risk of damage to such areas. In some cases this may include the need to introduce buffer zones between the worked and undisturbed areas; but such measures should be proportionate to the importance and size of the undisturbed areas and their conservation and/or archaeological value.	Specific policy.
92	Considering individual planning applications General MPAs should have regard to all material considerations when determining applications, including this Guidance Note and relevant policies in development plans. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, archaeological, agricultural, landscape, traffic, site restoration and other effects of the proposals that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them as appropriate.	

98	Transport … The Government would like to see as much freight as possible carried by rail or waterway rather than by road wherever possible…	
99	Working practices, restoration, aftercare and after-use It is established Government policy that restoration and aftercare will be required to make mineral workings environmentally acceptable and fit for beneficial after-use. This may include restoration to peatland habitats, agriculture, forestry, or other forms of amenity use. Applications for extraction of peat need to include information which demonstrates that the site can be restored satisfactorily; and if there is serious doubt whether a new extraction proposal can meet this requirement then it is doubtful whether permission for working should be given. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved…	
100	Reinstatement of sites to a condition suitable for an appropriate after-use should be an integral part of the planning of peat extraction…	
101	Implementation and review This Guidance Note will provide the basic framework for the planning for provision of peat and alternatives for soil improvers and growing media. It will be taken into account by the Secretary of State when considering development plans and individual applications which come before him for decision.	
102	MPAs should take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of materials in a manner compatible with environmental objectives. The plans should also provide guidance on the environmental objectives and the development control criteria which will be applied.	
103	The peat industry should endeavour to ensure that proposals for mineral development are consistent with this Guidance Note and that they are brought forward at the right time. The industry is also responsible for achieving a high standard of operation while a site is being worked and for restoring the site when working has finished.	
104	This Guidance Note has been based on the best information currently available. It will need to be kept under review and updated to reflect changes in demand, development of alternatives and environmental standards.	

MPG13: GUIDELINES FOR PEAT PROVISION IN ENGLAND - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
	Overview Mineral Planning Guidance Notes set out the Government's policies on minerals planning issues, and provide guidance to local authorities, the minerals industry and other interested parties. Local planning authorities must take their contents into account in preparing their development plans. The guidance may also be material to individual planning applications and appeals. This Guidance Note provides advice to mineral planning authorities and the peat extractive industry on the exercise of planning control over the extraction of peat. It sets out the national picture on peat production, permitted reserves and consumption for horticultural purposes; and on the current amounts, sources and likely trends in usage of alternatives to peat, over the next 10 years. The guidance: • indicates the national policy considerations to be taken into account when drawing up policies for peatlands in development plans, and from this; • advises local authorities on the identification and protection of important peatland habitats and archaeological sites; • sets out criteria for selection and identification in plans of acceptable new sites for peat extraction, and factors which need to be considered when determining applications for planning permission; • provides a framework for updating old permissions for peat extraction, with particular emphasis on the rehabilitation of sites to enhance nature conservation; • provides guidelines for the rehabilitation of damaged peat bogs.	
1	Introduction The extraction of peat from British bogs, particularly from sites known as "lowland raised mires", has been a source of concern. The Department of the Environment convened a Working Group to consider the balance between nature conservation interests and the market demand for peat. The terms of reference and membership of the Group are reproduced in Annex A. The Group's report has been published.	
2	The use of peat in England, and also in the UK as a whole, is almost entirely related to horticulture, either as growing media (materials in which plants are grown isolated from open ground) or as a soil improver (materials added to soil, ie open ground, mainly to improve its physical condition). In contrast to some other European countries, peat is not extracted commercially on any scale for use as a fuel. Current estimates indicate a present UK usage of horticultural peat of approximately 2.55 million cubic metres per year, of which 87% (2.2 million cubic metres per year) is used as growing media, and 13% (330,000 cubic metres) as a soil improver. The two main markets for peat are amateur gardeners and the professional horticulture industry, accounting for 58% and 39% of total usage respectively. The private sector landscaping and local authority sectors account for the remaining 3% used. About 60% of this peat comes from production within the UK, mainly from sites in England, and the remaining 40% from imports.	
3	The use of alternatives to peat has more than doubled (120% increase) since the early 1980's, and now accounts for almost 30% of all substrate used for horticulture. This trend is expected to continue, albeit probably at a slower rate, since much of the most readily achievable substitution of materials, as soil improvers, has already taken place. By the year 2005 it is predicted that alternatives will account for over 32% of total substrate use. There are, however, a number of specialist uses for which satisfactory alternatives do not yet exist.	
6	Forecasts of demand for peat and for alternatives to 2005 are provided in these guidelines based on predicted market requirements. The guidelines identify ways in which the demands of the horticultural industry and other users of peat can best be met from supplies of domestic and imported sources for at least the medium term in a sustainable way; and how alternatives to peat can be expected to contribute to market requirements. However it is recognised that advances in the development of alternatives, possibly within the short to medium term, may modify demand for peat. In order to keep abreast of future developments the Department will be monitoring the effectiveness of these guidelines. It proposes also to support an independent unit to monitor the range and performance of peat and other organic products used in the markets in Britain, and to provide further guidance as necessary.	
11	Policy and objectives Nature conservation and biodiversity The Biodiversity Action Plan has set out underlying principles and objectives, to conserve and enhance biological diversity within the UK, and to contribute to the conservation of global biodiversity through all appropriate mechanisms. Objectives for conserving biodiversity are: i) To conserve and where practicable to enhance: a) the overall population and natural ranges of native species and the quality and range of wildlife habitats and ecosystems; b) internationally important and threatened species, habitats and ecosystems; c) species, habitats and natural and semi-natural habitats that are characteristic of local areas; d) the biodiversity of natural and semi-natural habitats where this has been diminished over recent past decades.	

	ii) To increase public awareness of, and involvement in, conserving biodiversity. iii) To contribute to the conservation of biodiversity on a European and global scale.	
12	Aims 12.The aims of these Guidelines are: i) to provide a clear framework within which mineral planning authorities can develop policies for peat in development plans and can carry out development control over peat extraction; ii) to provide guidance to local (including mineral) planning authorities to ensure conservation of important peat habitats and archaeological deposits in development plans; iii) to serve as a national framework for the Secretary of State: a) when formulating Regional Planning Guidance; b) when exercising his functions under the Town and Country Planning Act 1990, as amended by the Planning and Compensation Act 1991 in respect of development plans; c) within which the merits of individual planning applications on appeal and any applications called in for determination can be considered; iv) to help reduce the number of cases going to appeal; v) to provide the basis for informed consideration at national, regional and local level of the implications for peat working of other policies; vi) to provide guidance on the requirements for updating existing planning permissions for peat extraction to modern standards.	
13	These guidelines: i) outline - the Government's strategies for sustainable policies for minerals, nature conservation and archaeology with regard to peat; ii) set out the national planning policy framework for the working of peat; iii) outline the specific environmental impacts of the peat industry; and constraints on new developments; iv) establish policies for the working and restoration of cut-over peat bogs; v) summarise the national trend in peat production and consumption; life of permitted reserves; and the usage and sourcing and trends in alternatives to peat.	
14	The guidance supplements the general guidance contained in the Mineral Planning Guidance Note 1 "General Considerations and the Development Plan System" (MPG1). Guidance is also provided on the review of existing planning permissions for peat extraction, supplementing the general guidance in MPG4 "The Review of Mineral Working Sites".	
15	These policy Guidelines apply only to England. The Scottish Office Environment Department has already published guidelines for peat extraction in Scotland which accord with the findings of the Peat Working Group, in National Planning Policy Guideline 4 "Land for Mineral Working" issued in April 1994. They will consider in due course whether, in the light of the published Working Group report, any further guidance is needed. The Welsh Office may issue guidance in due course.	
16	These guidelines are only applicable to peat which is cut for the purpose of sale, and which is therefore subject to planning control. Some activities which may take place in limited areas of England under, for example,"rights of turbary" are outside the scope of this MPG.	
17	National overview Types and present condition of peat bogs There are two fundamental types of peatland in Britain: fens and bogs. Fens occur in waterlogged situations where they receive nutrients in water from the surrounding catchments as well as from rainfall. Bogs occur in areas where they are largely dependent on precipitation for supply of water. The bog vegetation is characterised by acid tolerant plant communities in which the genus Sphagnum usually is, or has been, a significant component (and hence they may be called "acid bogs").	
18	There are two main types of acid bog peatlands in Britain. Raised bogs are characteristic of an almost or completely flat underlying topography and so are mainly found on low plains or broad valley floors while Blanket bogs occur in areas which are sufficiently cool and constantly wet to allow the accumulation of peat on all but the more steeply sloping ground. A third form of acid bog which exhibits characteristics intermediate between raised and blanket bogs (Intermediate bog) has also been classified. A summary of the nature and origins of peatland types and of their classification and mapping is in Annex B.	
19	In England, raised bogs in their natural state originally covered almost 37,500 hectares (ha) at just over 200 sites. Blanket bog peats, mainly in the uplands of Northern England but also in parts of the South West, extend to about 214,000 ha. Whilst considerable areas of Sphagnum dominated blanket bog are thought to remain, the majority of raised bogs in England have been altered by human activities - especially through agricultural drainage.	
20	Planning permissions for peat extraction Planning permissions for commercial peat extraction affect 17 raised bog sites in England, with a total area of 5,793 ha. within 11 Mineral Planning Authorities (MPAs). It is not thought that there is any current commercial peat extraction from blanket bogs in England. Table 1 summarises, by MPAs, the main areas presently permitted for extraction.	

Table 1 - The area of raised bog in England with planning permission for peat extraction, and the area within SSSIs

MPA	Planning Permission Area (ha)	Area of permissions within SSSIs (ha)
Cheshire	197	10
Cumbria	923	514
Doncaster	2414	2414
Humberside	482	475
Lancashire	136	0
Merseyside	45	0
Northumberland	43	0
Salford	226	0
Shropshire	71	71
Somerset	1176	623
Wigan	80	10
Total	5793	4117

Source: MPAs

21 However, several major sites with permission are now covered by agreements between English Nature (EN) and the peat extraction industry, resulting in the purchase by or lease to nature conservation bodies. It is estimated that the remaining area with planning permission in England where extraction is taking place, or may do so, therefore totals 4,240 ha.

22 An assessment of the data on planning permissions in England provided by MPAs, together with information on land designated as Sites of Special Scientific Interest (SSSIs), indicates that just over 70% of the areas of peatland with planning permission (rather over 4,100 ha), are also designated as SSSIs. However, further assessment of the data indicates that less than 2,500 hectares of SSSIs, are continuing to be worked, and such working is mainly confined to surfaces already made bare by earlier peat extraction.

23 The results of a survey of PPA members in 1993, for the Working Group, provided estimates of permitted reserves intended for working. The data identifies reserves of 57 million cubic metres in England (equivalent to 26 million cubic metres of processed peat). These figures exclude permitted reserves which have been given up in nature conservation agreements.

24 However, the nature and scale of peat workings means that whilst some sites have continued life expectancies in excess of 50 years, a number of the largest and most productive sites in England will become worked-out within the next 10-20 years. A small number of sites are predicted to become worked-out within the next 10 years. Table 2 illustrates this.

Table 2 - The number of peat working sites and permitted areas in England predicted to become worked-out with time

Time (years)	Number of sites	Area of sites (ha)
0 - 5	1	200
6 - 10	0	0
11 - 15	2	1141
16 - 20	3	1611

21 - 30	2	447
31 - 50	2	258
51 - 80	2	130

25 Production, imports and consumption of peat

Data on the production of peat within Great Britain have only been collected in a systematic way since 1991, and are published in the CSO statistical publication for minerals, the Business Monitor PA 1007. Total sales of GB produced peat in 1993 were estimated to be about 1.45 million cubic metres (Mm^3), of which almost 1.1 Mm^3 were from bogs in England, with the remainder (nearly 0.4 Mm^3) from Scotland (see Table 3). There is now no commercial peat production in Wales. Table 4 provides regional production figures for England for 1993, as far as they can be made available.

26 Imports of peat have provided a significant proportion of total UK consumption of the mineral for more than a decade but only since 1991, when domestic figures for sold output have been collected, has it been possible to assess the overall proportions. In addition, imports are recorded in tonnes rather than cubic metres, so that a conversion factor has to be applied - a factor of 4 cubic metres per tonne was used by the Working Group. Imports of peat are thus calculated to have been 1.0 Mm^3 in 1992, accounting for approximately 40% of UK consumption. Over 85% of imports came from the Republic of Ireland, with the remainder largely from Germany, the Netherlands (as re-exported peat), the former Soviet Union and Finland. The UK is the largest export market for Irish peat and most of this imported peat is processed in Liverpool prior to national distribution.

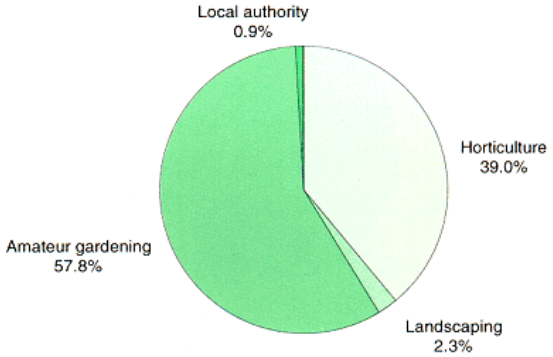
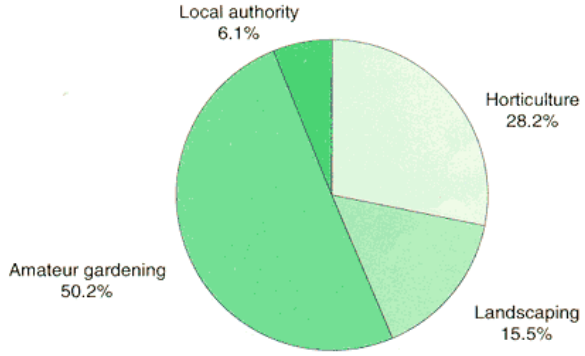
27 The demand by UK users for peat for consumption within the professional and amateur markets in the early 1990's is estimated to be 2.55 million cubic metres a year. The largest use of peat is by the amateur gardening sector, thought to account for almost 1.5 Mm^3 per year (1993 data). The professional horticultural industry are estimated to consume 1.0 Mm^3 (1990 data), and the local authority and professional landscaping sectors 22,800 m^3, and 58,100 m^3 respectively (Figure 1). For comparison Figure 2 provides a summary of the total substrate used by the 4 main market sectors, and Figure 3 the sources of materials

Table 3 - Sales of peat from bogs in England and Scotland in 1991, 1992 and 1993

	Horticultural Use			**Other Uses**			**Total**		
	1991	**1992**	**1993**	**1991**	**1992**	**1993**	**1991**	**1992**	**1993**
England	1202	1079	1071*	2	4	1*	1204	1083	1072
Scotland	241	332	287*	116	91	93*	357	423	380
Total	1443	1411	1358	118	95	94	1561	1506	1452
* Figures based on DOE estimates									
Source: CSO Business monitor PA 1007									

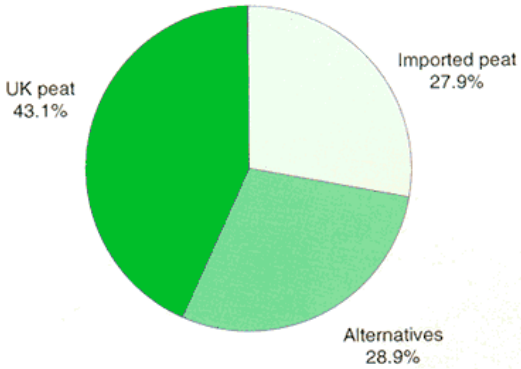
Table 4 - Volumes of peat sold from bogs within regions of England in 1993

Area of origin	**Horticultural Use**	**Other Uses**	**Total**
North	273	0	274
Yorkshire and Humberside	438	1	439
North West	178	0	178
East Anglia	*	0	*
South West	*	0	*
Total	1071**	1**	*

	* Data withheld to prevent disclosure of individual company information. ** Figures based on DOE estimates Source: CSO Business monitor PA 1007		
28	Some of these markets have regional concentrations whilst others are national. Over a third of the total glasshouse area in the UK is based in South East England, with a further 13% in Yorkshire and Humberside and 12% in the North West. Markets for other uses, especially amateur gardening, are national. **Figure 1. Total use of peat for horticulture and landscaping in the UK.**  **Total peat use 2.55 million m³** Source: Aspinwall and Company **Figure 2. Total use of substrate for horticulture and landscaping in the UK.**  **Total substrate use 3.6 million m³**	

Source: Aspinwall & Company

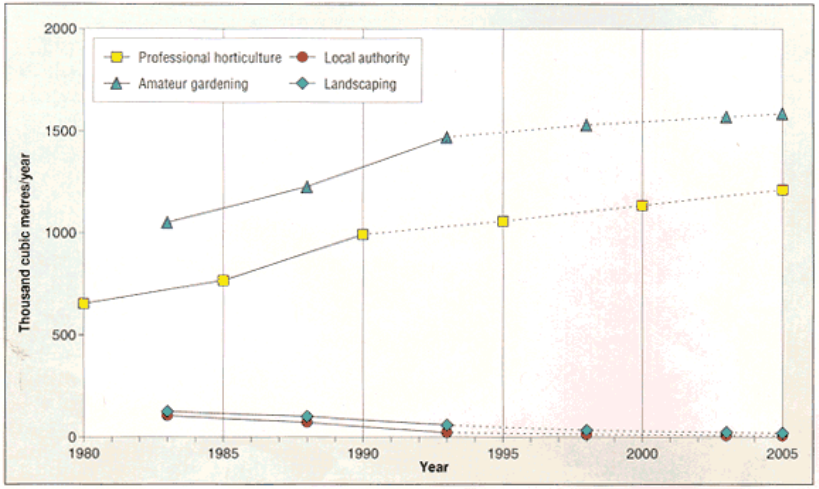
Figure 3. The source of materials for use in horticulture and landscaping.



Total substrate use 3.6 million m³

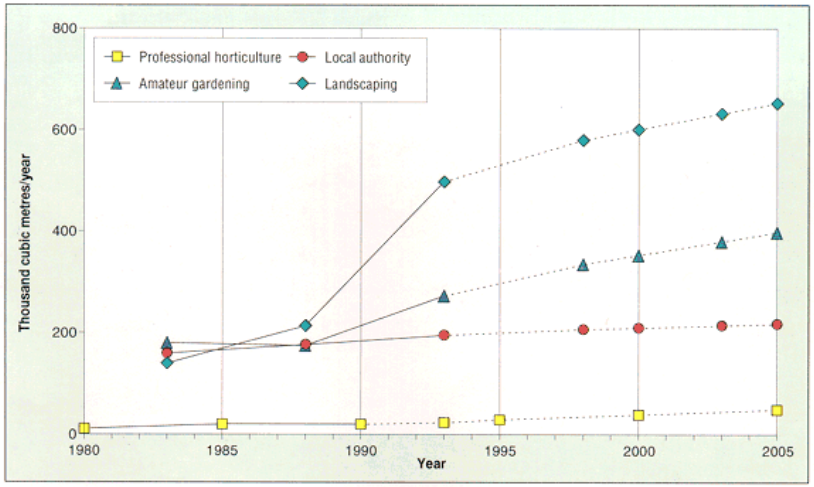
Source: Aspinwall & Company

Figure 4. Past, current and predicted future use of peat by the main user sectors.



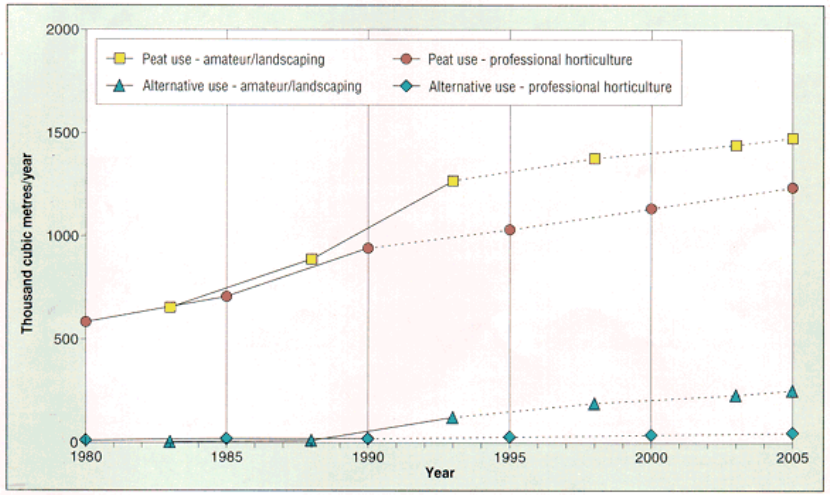
Source: Aspinwall & Company; ADAS; DOE

Figure 5. Past, current and predicted future use of alternatives by the main user sectors.



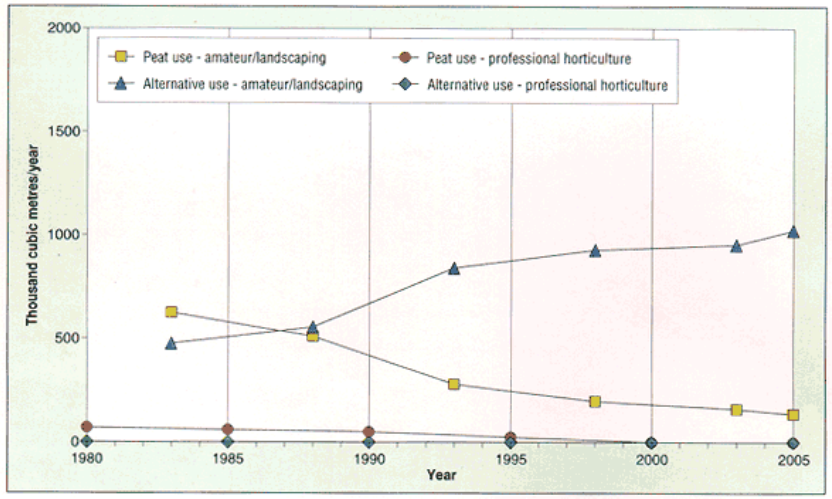
Source: Aspinwall & Company; ADAS; DOE

Figure 6. Past, current and predicted future use of peat and alternatives as growing media.



Source: Aspinwall & Company; ADAS; DOE

Figure 7. Past, current and predicted future use of peat and alternatives as soil improvers.



Source: Aspinwall & Company; ADAS; DOE

29 Peat, alternatives, consumption and sources

The range and availability of alternatives to peat has increased significantly over the last few years. The main alternatives to peat and the quantities used in the amateur gardening, landscape and local authority sectors are summarised in Table 5. Bark is the most common material, accounting for 84% of the total. Statistics for these materials are available only for the UK as a whole. Alternatives account for almost 30% of the total quantity of substrate used by the professional and amateur sectors. The greatest use of alternatives (80%), is as a soil improver. It is estimated that alternatives account for over 70% of the total of materials used as soil improvers. In contrast, alternatives account for only 9% of the substrates used as growing media. Further information on the current position with regard to peat alternatives is summarised in Annex C.

30 There is relatively little use of these alternatives by the professional horticulture industry, 20,000 m^3 (2% of their total substrate use). However, in addition most production of glasshouse salad crops uses other mineral materials (rockwool or perlite) which are not generally considered as "peat alternatives" for other market sectors.

31 The amateur gardening sector increased the use of alternatives to peat from 175,000 m^3 to 273,000 m^3 between 1988 and 1993, an increase in absolute terms of 56%. The use of alternatives as soil improvers increased from 28% to 39% over this period, and for growing media from 1% to 9%. Despite these changes, peat consumption also rose by 20% in absolute terms and there is still an overwhelming reliance (84%) on peat as growing media by this sector (Table 6).

Table 5 - The types and quantities of peat alternatives used for growing media and soil improving by the amateur gardening, local authority and landscaping sectors in 1993 cubic metres

	Soil Improvers	Growing Media	Total
Bark	783000	25000	808000
Coir	*	70000	70000
Wood waste	7100	17300	24400
Paper waste	3200	10500	13700
Mushroom compost	18600	0	18600
Composted waste	10100	200	10300

Cocoa shells	10000	0	10000
Straw	10000	0	10000
Poultry manure	1000	0	1000
Total	843000	123000	966000

* Note: very small quantities of coir are known to be used in some soil improver products, but the quantities are not believed to be significant.

Source: Aspinwall & Co.

Table 6 - The use of peat and alternatives for growing media and soil improving by the amateur gardening sector in 1993

	Peat	**Alternatives**	**(`000m$^{3)}$ Total**
Soil improvers	239,400	156,400	395,800
Growing media	1,229,700	116,200	1,345,900
Total	1,469,100	272,600	1,741,700

Source: Aspinwall & Co.

32 Local authorities are estimated to have used 196,000 m^3 of peat alternatives in 1993, 97% of which was used as soil improvers (Table 7). As 96% of all soil improver materials used are now peat-free there is limited scope for further decreases in the use of peat within this sector. The use of alternative materials in growing media increased from 2% to 27% by volume since 1988.

Table 7 - The use of peat and alternatives for growing media and soil improving by the local authority sector in 1993

	Peat	**Alternatives**	**`000m^3 Total**
Soil improvers	7,200	190,100	197,300
Growing media	15,600	5,700	21,300
Total	22,800	195,800	218,600

Source: Aspinwall & Co.

33 The private landscaping sector is predominantly a market based on soil improvers, and is the largest user of alternatives of the sectors considered. Alternatives account for 94% of soil improvers (496,500 m^3), but only 4% of growing media (Table 8).

Table 8 - The use of peat and alternatives for growing media and soil improving by the private sector landscaping industry in 1993

	Peat	**Alternatives**	**`000m^3 Total**
Soil improvers	33,400	496,500	529,900
Growing media	24,700	1,100	25,800

	Total	58,100	497,600	555,700
	Source: Aspinwall & Co.			

34 All of the coir and cocoa shells used by these markets are imported, as is a significant proportion of bark (25% in 1993). Further details are in the Working Group's report.

35 In November 1994 the EC Commission adopted the UK developed criteria which set standards for soil improvers under the EU Ecolabelling scheme. A soil improver will only be considered for the award of an eco-label if its organic matter content is provided by constituents derived from the processing and/or re-use of waste materials (as defined in Directive 75/442/EEC on waste). All other criteria must also be met.

36 Employment
The peat extractive industry has a direct work force of about 1,000 (including part-time workers). In many cases this is in rural areas where other forms of employment may be limited. The peat industry supply about 10,000 growers, 2,000 garden centres and 850 DIY multiple outlets with peat. The latter 2 are also outlets for peat alternatives.

37 Future estimates of demand for peat and alternatives in the UK
Estimates of the consumption of, and demand for, peat and alternatives in the UK have been prepared by the Ministry of Agriculture, Fisheries and Food (MAFF) for the professional horticultural sector, and through a research project for DOE for other sectors. It is not possible to provide separate future estimates for England.

38 The predictions of future market demands are based on observed trends for 1988-1993, extrapolated and modified by pragmatic expectations of market behaviour. The development of the market for soil improvers and growing media can be affected by a variety of economic, technical and political factors. Table 9 summarises the market forces which have the greatest potential to influence the size and other characteristics of the future markets for materials other than used in professional horticulture. In the professional markets, a survey conducted by MAFF for the Working Group indicated that performance and the economics of materials used were the greatest influences on choice.

39 It is predicted that there will be a continuing growth in demand for horticultural materials in both the professional and amateur gardening markets. The general predictions from the estimates made, making no allowances for further intervention and market changes, indicate that in broad terms the total market demand for peat will be in the order of 2.6 Mm^3 to 2.7 Mm^3 by the year 2000 and 2.6 Mm^3 to 2.8 Mm^3 by 2005 (Figure 4). The use of alternatives is predicted over the same timescale to increase to about 1.2 Mm^3 by the year 2000 and to about 1.3 Mm^3 by 2005(or slightly over 30% of the total market)- as indicated in Figure 5. An assessment of the figures for predicted market demand, indicates that the overall increase in peat usage relates to the anticipated greater demand for growing media by the professional horticultural and amateur gardening sectors (Figure 6). The use of alternatives as growing media is also predicted to increase, and it is predicted that by 2005, approximately 10% of growing media will be non-peat based (300,000 m^3). In contrast, it is predicted that peat will be used less for soil improving in the future, with increased reliance on alternatives (Figure 7). The professional horticulture sector are expected to have phased out peat use altogether for soil improving by 2005, while the usage of peat by the other market sectors is expected to be less than 150,000 m^3 per year by this date, accounting for less than 13% of all material used for soil improving.

Table 9 - Main market forces influencing users

Market factor	**Amateur**	**Local Authority**	**Private Sector Landscaping**
Overall level of activity in the landscape gardening market (eg increase in gardening as a leisure activity, or improvements in the property development market).	High	High	High
Price differential peat vs peat free materials	High	Medium	High
Quality differential peat vs peat free materials (especially for growing media)	Medium	Low	Low
Availability of raw materials for peat free products	Medium	Medium	Medium

	Environmental concerns	Medium	High	Low	
	Legislation favouring the use of composed waste	Medium	Medium	Medium	
	Source: Aspinwall & Co.				
40	…Some of the initiatives in the January 1995 consultation draft of "A Waste Strategy for England and Wales" have potential to increase the use of recycled materials as peat alternatives, particularly as soil improvers. These include the effects on overall management of "green wastes" from introduction of the Government's proposed landfill tax and from the target that 75% of local authorities should actively promote composting by the year 2000. The Government intends to encourage practical measures to promote greater efficiency of the use of materials, and the draft Waste Strategy for England and Wales states that Government will work with industry to overcome market barriers to compost-based products. Consequently the Government believes that it would be realistic to set a target for 40% of the total market requirements for soil improvers and growing media to be supplied by non-peat materials within the next 10 years.				
41	At the same time, the Government takes the view that in order to meet a share of the anticipated market demand for growing media based on peat in the medium to long term, the UK peat extraction industry will require some new areas for extraction. Taking account of current permitted reserves, and losses to them through updating rehabilitation requirements for existing sites, together with the areas already given up for nature conservation, it is predicted that approximately 1,000 hectares may be needed over the next 10-20 years. This level of provision should be obtainable from sites within the UK which have already been considerably damaged and which meet the selection criteria set out in this guidance note. However, the area of 1,000 hectares should not be taken as a target to be achieved over the next 20 years. Rather it is an estimate based on current market conditions. The actual provision of new sites will depend on future market conditions, which will be influenced by factors such as future levels of imports and further developments in, and uptake of, alternatives, and the operation of the planning guidelines.				
44	Government policies in respect of peatlands in England … There is probably a balance in undisturbed peatlands between natural emissions of methane (a powerful greenhouse gas) and the vegetative storage of carbon through the removal from the atmosphere of carbon dioxide (the most important greenhouse gas). However, drainage of peatlands promotes oxidation of carbon…				
46	The Government believes that producers and consumers of horticultural media all have a role to play in achieving a more efficient use of resources. The Government intends to encourage practical measures to promote greater efficiency of use, and to monitor changes. Developments in the quality, performance and availability of peat and non-peat based growing media and soil improvers used in the professional, landscape and amateur gardening markets will be monitored for an initial period of 3 years by independent consultants for the Department. This research will also have regard to the development of international standards for these products, of other relevant policy developments (eg recycling), and the usage of materials for the same markets in other EC countries.				
47	Development plans General considerations The planning system provides a means of examining and reconciling the conflicting claims on land of mineral working, agriculture, amenity, building and other forms of development. The system also affords a means of preventing unnecessary sterilisation of mineral resources. As part of the overall planning process, national policies for provision of a particular mineral such as those for peat must be balanced with other Government policies for such matters as the protection and conservation of the natural environment and the preservation of the national cultural heritage. The policies which are likely to be of most importance are mentioned below. It is necessary to refer to the source documents in each case for the full context within which these policies have been developed.				
48	Policies for the development and use of land, including the extraction of minerals, are set out in statutory development plans drawn up by local authorities under the Town and Country Planning Act 1990 (the 1990 Act) as amended by the Planning and Compensation Act 1991 (the 1991 Act). Under section 54A of the 1990 Act (inserted by section 26 of the 1991 Act) planning applications should be determined in accordance with the relevant development plan unless material considerations indicate otherwise. This means that there is in effect a presumption in favour of proposals which are in accordance with the development plan. This reflects the Government's commitment to a plan-led system of development control. MPAs are required to draw up a minerals local plan covering the whole of their area. In metropolitan areas, mineral policies will be contained in Unitary Development Plans (UDPs). The Government expects there to be substantial coverage of these plans by the end of 1996.				
49	Planning Policy Guidance Note 1 "General Policy and Principles" (PPG1) and Minerals Planning Guidance Note 1 "General Considerations and the Development Plan System" (MPG1 - currently under review) provide further advice on planning policy for both MPAs and the minerals industry. PPG12 "Development Plans and Regional Planning Guidance", provides advice on the preparation of development plans.				
50	With a plan-led system of development control, the Government attaches considerable importance to having up-to-date minerals local plans in place. The preparation of plans provides an important opportunity to test locally the practicality and environmental acceptability of the policies and guidelines included in this MPG. It therefore looks to mineral planning authorities to ensure that minerals local plans are prepared as a matter of priority and kept up to date.				
52	Policies for nature conservation of peatland habitats and for peatland archaeology in development plans … In respect of raised bogs, such sites are likely to be areas which retain a primary peat surface or include a significant proportion of species characteristic of a lowland				

	raised mire habitat (further details are in Annex B). Many peatlands are already notified as SSSIs; some may be classified as Special Protection Areas under the EC Birds Directive or as Special Areas of Conservation under the EC Habitats Directive. The Conservation (Natural Habitats &c.) Regulations 1994 formally transpose the requirements of the EC Habitats Directive into national law… … Further advice on legislation and policies on nature conservation and development is in paragraphs 62 to 70…	
53	Criteria for selection of sites for future peat working *General approach* Peat producers, and other suppliers of materials to the user markets, should determine the level of output they wish to aim for in the light of market conditions. However, the acceptability of proposals for the development of new sites and of extensions to existing sites will be determined by the land-use planning system. The following criteria are set out as guidelines.	Applicable to any material that is sold.
54	*Regional position* Peat bogs occur only in some areas of England. Unlike some more nationally widespread minerals, it is not therefore appropriate to consider landbanks within most local authority areas or even regions.	
55	Within some areas of current production, it is likely that there may be only limited opportunities for the development of new sites, or for extensions to existing sites, because of a lack of bogs which meet the selection criteria consistent with these guidelines.	
56	*Guidelines for development plans* It may be possible to identify, in development plans, peatlands which could be acceptable for future working from sites which have been significantly disturbed and damaged in the past by drainage for agriculture or forestry or from earlier domestic peat extraction. Such sites may often have limited nature conservation importance, and may therefore justify lesser protection from development than less disturbed examples. However, some sites within these land-use classes, as defined in the National Peatland Resource Inventory (NPRI - see Annex B) do retain significant nature conservation interest and there may be other constraints on development such as archaeology or the quality of the land for agriculture. Conversely some of these damaged sites may ultimately benefit in the longer term from controlled peat extraction followed by the reinstatement of the optimal wetland conditions which would enable a raised bog to regenerate. MPAs should have regard to all material considerations when determining applications on these areas, including other national and regional policy guidelines.	General policy for all minerals. Not necessary for specific reference for peat.
58	Comprehensive inventories of other peatlands such as intermediate and blanket bogs and fens are not currently available…	
61	A summary of projected future demand for peat and alternatives for use in the horticultural and amateur markets is given in paragraphs 37 - 41. This projection is intended to give mineral planning authorities some indication of future likely demand. MPAs may wish to use the information given to assist them in identifying specific sites, preferred areas or areas of search which may meet these needs. Discussions with individual operators about their longer term intentions may also be helpful in establishing the provisions for peat which should be made in the plan.	
62	Areas designated for their nature conservation importance *General* Conservation legislation in the UK has developed alongside a comprehensive system of town and country planning legislation. A framework of statutory measures to safeguard wildlife habitats and natural features of the environment has been established since 1949. Special policy considerations apply to mineral proposals within sites designated for their national or international nature conservation importance…	
63	*Sites of Special Scientific Interest (SSSIs)* Under the Wildlife and Countryside Act 1981, the statutory conservation organisations have a duty to identify sites with a special scientific interest and to notify landowners and occupiers, local planning authorities and the appropriate Secretary of State of them. Many peat bogs in England, including a significant proportion of existing extraction sites, have been notified as SSSIs. Whilst all SSSIs form part of a national series and are subject to the basic procedures for protection detailed in PPG9, some sites have additional designations conferred on them for specific reasons outlined in the following paragraphs. National Nature Reserves (NNRs)	
64	*National Nature Reserves (NNRs)* National Nature Reserves are designated by EN under the National Parks and Access to the Countryside Act 1949 or the Wildlife and Countryside Act 1981. These SSSIs are of national importance where the primary use is for nature conservation.	
65	*Special Protection Areas* Some peatland SSSIs are of international importance and have been designated Special Protection Areas (SPAs) or identified as potential SPAs under the EC Directive on the Conservation of Wild Birds (79/409/EEC).	
66	*Special areas of Conservation* The EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora - the Habitats Directive (92/43/EEC) adopted in 1992 identifies several acid bog habitat types as endangered, rare or endemic and requiring particular attention. Two, active raised bogs and active blanket bogs, are included in those identified as priority habitats (see Annex B). Degraded raised bogs which are still capable of natural regeneration are also listed but are not a priority habitat. National lists of proposed sites to be protected as Special Areas of Conservation (SACs) under the Habitats Directive are to be submitted by Member States to the Commission by June 1995, and a list of	

	sites of Community importance must be agreed between the Commission and Member States by June 1998. Measures to protect sites must be in place from the time they are selected as sites of Community importance. For the UK, such sites will already be notified as SSSIs.	
67	The UK is bound by the EC Birds and Habitats Directives. Special considerations therefore apply to developments affecting SPAs and to SACs under these Directives. The Conservation (Natural Habitats &c.) Regulations 1994 (the Habitats Regulations) apply the requirements of the Habitats Directive to future SACs and to existing and future SPAs. .. …Further advice is given in PPG9 "Nature Conservation".	
68	**Ramsar sites** Ramsar sites are wetlands of international importance. Under the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Cm 6465), contracting parties are required, inter alia, to designate sites for inclusion in a list of wetlands of international importance and to compensate for any loss of listed wetlands. Contracting parties must also include wetland conservation considerations within their national land-use planning, and promote the wise use of wetlands generally...	
74	Other environmentally important areas Planning authorities may designate in their development plans other environmentally significant areas, such as special landscape areas of great landscape value or sites of local nature conservation importance. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not be as high as that given to the nationally designated areas referred to above. When considering the extent of such areas Mineral Planning Authorities will wish to bear in mind that minerals can only be worked where they are found and their responsibility for making adequate provision for minerals in accordance with these Guidelines.	
75	Archaeological and other cultural interests Peatlands frequently contain remains of archaeological and palaeo-environment significance, including organic items which have survived in exceptionally good condition, due to the waterlogged, anaerobic nature of peat. Sites can also provide evidence of the history of climate, past land-use and landscape creation over the last several thousand years. Remains and deposits in peat, however, are generally very fragile and can be destroyed by desiccation following the lowering of the water table or exposure as well as by physical removal.	
76	… Planning Policy Guidance Note 16 - "Archaeology and Planning" (PPG16), and the revised CBI Code of Practice for Minerals Operators both underline the importance of early identification of possible archaeological constraints to development…	
77	… It is generally advisable to seek SMC in parallel with a planning application.	
78	Agricultural land Almost a third of the original area of lowland raised bogs in the UK has been reclaimed to agriculture, and where drained many of these areas, particularly in lowland England, constitute "best and most versatile agricultural land" (Grades 1, 2 and 3a of the MAFF classification)… … Peat differs from most other forms of mineral working, in that it is the exploited mineral which provides the high quality of the land. Therefore, while mineral extraction is not normally seen as irreversible development, in the case of peat extraction there will be fewer opportunities to reinstate the former agricultural land quality.	
79	There is less need to protect lower grades of land for agricultural purposes, and such sites may be considered more favourably for extraction. Restoration may be to an agricultural or alternative afteruse. In many cases it may be possible to reinstate wetland areas, including conditions suitable for the reestablishment of peatland habitats…	
80	Forestry A number of raised bogs in England have been drained and planted with trees. Some of these sites retain a nature conservation interest and may be notified as SSSIs. Other sites however, are of lesser nature conservation importance and may provide possible sites for peat extraction on removal of the trees. Site rehabilitation could be to forestry, nature conservation or other after-uses. The potential for further exploitation of peatlands currently under forests is more likely in Scotland, where almost 200 raised bogs are currently affected by forestry.	
81	The Government has published a report "Sustainable Forestry, the UK programme"; and is supporting the joint initiative of the Forestry Commission and Countryside Commission to create a series of new "Community Forests" in several parts of England. It proposes to issue guidance on the preparation of indicative forestry strategies…	
82	Other developments affecting peatlands A number of other types of development have also affected peatlands. In England, for example, landfilling has occurred on some raised bog sites in Cheshire and the North West, while wind farms have been sited or proposed on blanket bog sites in the uplands. Some deposits of opencast coal have been extracted from beneath peat areas.	
83	… The general criteria on national policies in this guidance note therefore have relevance for developments other than peat extraction, and which may affect peatland sites of importance for nature conservation, archaeology or for other national policies.	
84	Treatment and reviews of existing permitted extraction sites Many existing permissions for peat extraction in England were given in the early years following the 1947 Planning Act, and have few, if any, conditions to control working practices, or to secure the rehabilitation and longer term management of worked out areas.	
85	The Government considers that, in the context of sustainable development, it is essential to bring permissions up to modern standards. The Department issued a consultation paper on old mining permissions in 1992. Peat was identified as a particular problem. A second consultation paper on the reform of old mineral permissions was issued in April 1994. In this, the Government proposed that all mineral planning permissions should be reviewed and planning conditions should be brought up to	

	modern standards. It proposed that there should be no compensation for complying with modern sensory conditions (which includes restoration and aftercare) on active sites; and that dormant sites should not be reactivated without full modern conditions. It also proposed that there should be no blanket revocation of minerals permissions in SSSIs, National Parks or AONBs, although as for sites elsewhere, they should be subject to modern planning conditions. The paper looked to proposals to come forward from the Department's Peat Working Group for any special measures to deal with the problem of old peat permissions.	
86	As part of the discussions of the Working Group, the Peat Producers Association (PPA), which represents the majority of producers, agreed to the updating of their permissions to modern standards within 3-5 years, ahead of any wider changes for the minerals industry as a whole and which may require new legislation. The PPA already have a Code of Practice which covers many of the desirable points for modern schemes; but the agreed schemes will usually need to be site specific.	
87	The current statutory options for achieving such updating of old peat permissions under the 1990 Act would be by legal agreement (S.106 planning obligation); by a Modification Order (S.97) or by the applicant applying to continue operations but vary the conditions (S.73).	
88	However, the Government has now brought forward amendments to the Environment Bill, to deal statutorily with the problems of updating old mineral permissions (Commons Committee Hansard, 13 June 1995, Cols. 624-646). These will require the initial updating of planning permissions where the predominant planning permission was granted after 1 July 1948 and before 22 February 1982. It is proposed that active sites will be reviewed in two consecutive phases, with the oldest sites first. However, to deal with the particular problem of sites wholly or partly within national parks, AONBs and SSSIs, all of these will also be reviewed in the first phase. The majority of existing permissions for peat extraction will therefore fall within the first phase of reviews. For peat sites, the Government's announcement will carry forward into legislation the voluntary agreement already given by the PPA. The difference will be that the owner or operator will have to submit a scheme of updated conditions, by a specified date, for the approval of the MPA. This approach will broadly follow that adopted for Interim Development Orders.	
89	The Department will be issuing guidance on the updating of old mineral permissions, after the passage of the legislation. However, this section of the MPG, together with Annex D, outline the general principles which the Government intends should be followed by owners and operators of peat sites when submitting their schemes of conditions. Wherever practical, a priority for after-use schemes should be to provide areas for nature conservation unless a different after-use is already specified by the planning permission and remains technically achievable and appropriate. However, this may not always mean re-creating the conditions which would lead to the re-establishment of a raised bog system. The topics to be covered in rehabilitation and after-use schemes should include: the phasing of remaining extraction; hydrology, water controls and drainage; depths of peat and its characteristics; underlying geology; extraction methods; preservation or recording of archaeological remains; final excavated site topography; vegetation protection, regeneration and management; methods and timescales of site management.	
90	It may be helpful to seek further advice from EN on the preparation of updated schemes for individual sites. For some sites the terms of existing legal agreements between EN and a site owner or operator should be drawn on in the preparation of schemes to submit to the MPA. Where appropriate, the use of agreements (eg S.106 planning obligations) to secure the successful rehabilitation of sites may be desirable in addition to updated planning conditions. Implementation of rehabilitation schemes, which should be phased and progressive wherever possible, has potential to provide new or additional sites of nature conservation value totalling several thousand hectares.	
93	Considering individual planning applications General In considering proposals for peat extraction, authorities will wish to satisfy themselves that the operator's proposal for managing the site in accordance with planning conditions, and the restoration of the site and aftercare, are acceptable. Operators may therefore wish to call attention to, and authorities will wish to consider, any evidence as to how their proposed methods of site management, restoration and aftercare are likely to work out in practice. This might be done by providing evidence from an existing, similar site. MPAs should thus have regard to the practicality of the proposal before them.	
94	The Government encourages the use of environmental codes by the minerals industries, and welcomes the steps taken by the PPA in initially preparing a Code and in agreeing to revise it to take account of further matters, such as archaeology, which have arisen from the outcome of the Peat Working Group.	
95	Some peat extraction operations involve simple methods of working and processing which do not involve major capital expenditure. On the other hand, many sites necessitate a very lengthy period of planning and development work including initial vegetation clearance and drainage. It is important to recognise that development proposals may come forward which involve extraction over a long period because of this or perhaps related to phased schemes for restoration and aftercare.	
96	While in the past, the majority of peat extraction has been on lowland raised mires, there is potential for working blanket and intermediate bogs which have sufficient depths of peat and meet other suitability criteria. Mineral planning authorities should have regard to the guidance given in paragraphs 52 to 61	
97	Environmental assessment Environmental assessment (EA) is an important technique for ensuring that the likely environmental effects of development are fully understood and taken into account before development is allowed to go ahead. Where proposals for mineral development are likely to have significant effects on the environment, applications will need to be subject to EA under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988. Whether or not a particular mineral development proposal would have such effects so as to require an EA will depend upon such factors as the sensitivity of location, size, working methods, proposals for disposing of waste, the nature and extent of processing and ancillary operations, the arrangements for transporting products away from the site, and proposals for restoration and aftercare. The duration of the proposed workings is also a factor to be taken into account. DOE Circular 15/88 explains the provisions of the regulations and gives advice on their implementation. Further advice is given in "Environmental Assessment: A Guide to the procedures" (DOE 1989).	

98	Transport Peat is a light, but bulky, and relatively specialist mineral, which is extracted from a limited number of areas within England. While some bogs serve local needs, it is generally economic to transport peat by road from production sites to the main markets… … However, it is recognised that the location of peat deposits in relation to these other transport modes, as well as the nature of the markets, may make it more difficult than for some other minerals to use non-road transport. Further advice on planning policies for freight is given in PPG13 "Transport".	
99	Working practices, restoration, aftercare and after-use … Advice on the restoration, aftercare and longer term management of peat bogs for conservation is given in Annex D. This includes a general review of the essential technical requirements which need to be considered when planning conditions are drawn up.	
100	…As recognised in MPG7, whilst final site reclamation and possible after-uses must be considered at the time of a planning application and appropriate provision made in the conditions, it is likely that most schemes prepared before extraction commences will require updating and amendment during the lifetime of a working. Planning conditions may allow for this by requiring a general treatment scheme to be prepared and agreed before extraction starts, to be followed up by submission of detailed schemes for restoration and aftercare for particular phases, and by setting a time limit for submission of the final restoration plan which is commensurate with the duration of the mineral permission.	
Annex A	**Annex A Peat Working Group – Terms of Reference and Membership** A1 The Working Group has been convened by the Department of the Environment (DOE). Membership includes representatives of the peat industry, mineral planning authorities, the statutory nature and countryside conservation bodies, the Ministry of Agriculture, Fisheries and Food (MAFF), the Forestry Commission and the Scottish Office Environment Department, together with the Directorate of Rural Affairs and the Minerals Planning & Land Reclamation Division of DOE. A2 The Working Group will advise the Department about: • current peat extraction and usage having regard to the overall peatland resource in Britain and the place of imports and alternatives, and having regard to the Government's general policies for reconciling the supply of minerals with sustainable development; • any required guidance at national level in respect of development control over existing extraction sites; guidance on rehabilitation of existing workings; and guidance in respect of future land-use issues affecting peatlands, especially the nature conservation of, and extraction from, lowland peat mires. A3 Particular topics which the Group will need to consider include: i) occurrence and types of peat; ii) the nature conservation status of the identified peat areas, including the scale and extent of the protected areas; and the archaeological and landscape importance of peatlands; iii) current areas of peat production; iv) production and uses of peat, and the place of imports; v) peat working practices, rehabilitation and after-uses, including the issues of old peat permissions as part of the Department's review of the operation of the 1981 Minerals Act; vi) peat alternatives; vii) the effects of mineral extraction on other peatland landuses (eg conservation, agriculture and forestry); viii) other land-uses affecting peatlands (eg agriculture and forestry); ix) use of information from the above to consider preparation of further planning guidance about nature conservation, peat extraction and other land-use matters affecting peatlands. A4 Information on the above topics will be obtained through factual papers and other information provided by DOE and other members of the Working Group. The Department may also invite information and views on these topics from additional consultees. A5 The Department's remit for minerals and planning policy legislation and guidance covers England. The Scottish and Welsh Offices are associated with the Group, whose work will assist in preparing any similar guidance for those countries.	
Annex B	**Annex B – Peatland types, their distribution and condition** National Peatlands Resource Inventory and SSSI guideline definitions of UK peatlands B1 A National Peatland Resource Inventory (NPRI) was initiated by the former Nature Conservancy Council (NCC) and is now coordinated by Scottish Natural Heritage (SNH). Its aim is to develop a database of information on the GB resource of acid (ombrotrophic) peatland, their past and current land-uses, and their present and potential value for nature conservation. B2 The April 1994 draft of the NPRI refers to the definitions of peatland used in the 1989 SSSI guidelines which distinguish two fundamental types of peatland; fens and bogs. B3 Fens (also termed "minerotrophic" mires) occur in waterlogged situations such as basins, valleys and flood plains where they receive nutrients from the surrounding	

catchment as well as from rainfall.
B4 Bogs ("ombrotrophic" mires) occur in areas where inputs of waters (almost exclusively from precipitation) have a low nutrient content and the local climate is generally cool and damp, or where the rainfall is sufficient to maintain the ground surface in a waterlogged condition. These can form above fen peats. Bog vegetation is characterised by acid tolerant plant communities in which the genus Sphagnum usually is, or has been, a significant component.
B5 Two main types of ombrotrophic bog are recognised to occur in Britain. Raised bogs are characteristic of an almost or completely flat underlying topography and so are mainly found on low plains or broad valley floors. Different types of raised bog are recognised by their location in the landscape and development history."Typical raised bogs" are discrete areas bounded by mineral ground, on alluvial or fluvial glacial flood plains. In most cases surrounding flood plain fens have been reclaimed, leaving an otherwise agricultural landscape. Some examples occur in upland situations."Estuarine raised bog" are formed on marine clays of estuaries,"basin raised bogs" are usually associated with and grade into basin fens.
B6 The vegetation cover of raised bogs, in particular the abundance of some Sphagnum species, is of critical importance to the development of the bog. This is because plant growth provides the basis for peat formation, water storage and impeded drainage, while the growth of Sphagnum species in particular helps to create the strongly acidic conditions of ombrotrophic peat and water.
B7 Within raised bogs, plant species show some micro-habitat preferences, particularly associated with the heterogeneous microtopography of the surfaces, which is induced primarily by plant growth. Certain plant species tend to occupy fairly distinct zones with respect to water level, either as part of the small-scale mosaic of a patterned bog surface or as part of a wider change in water level from the wet centre to the drier margins of a bog.
B8 Blanket bogs are identified as occurring in areas which are sufficiently cool and constantly wet to allow the accumulation of peat on all but the more steeply sloping ground.
B9 In many areas peatlands which may have begun as raised bogs have become swallowed up in the general expanse of the blanket bog, losing their distinctive marginal features, and in some cases the raised bog units have "often become impossible to detect without stratigraphic surveys". The SSSI guidelines suggest that in such circumstances it is "generally not practical to separate the raised bog elements from the general blanket bog classification". Many blanket bogs are also closely associated with fen peatlands.
B10 The guidelines distinguish a further type of acid peatland, known as "intermediate bog". These occur under conditions of climate and topography which are marginal for the development of blanket bog, but exceed those necessary for raised bog formation. They have the appearance of raised bogs which have expanded laterally so that the edge of the peat mass tends to merge gradually into surrounding areas of mineral soil. Sometimes two originally adjacent peat lenses have coalesced across a low intervening mineral ridge to form a single bog expanse. Though isolated in nature, intermediate bogs tend to occupy positions within the landscape which are more typical of blanket bog - watershed summits, saddles and spurs (ie areas which were water shedding prior to peat development), and are thus depend[e]nt upon a climatic regime more typical of true blanket bog development.
B11 Chapter 8 of the SSSI guidelines, which deals with bogs, was updated in December 1994 by the Joint Nature Conservation Committee (JNCC).

<u>The extent and distribution of peatlands</u>
B12 The draft NPRI has used British Geological Survey 1" and 1:50,000 Drift Edition Map Series, supplemented where necessary with the Soil Survey of Scotland 1:50,000 maps to assess the extent and distribution of peat deeper than 1 metre in Britain.
B13 Peatlands are extensive in Great Britain, covering almost 1.65 million hectares (Table B1). Blanket bogs are the most extensive, covering 1.43 million hectares, while raised bogs are estimated to once have covered at least 69,390 hectares. Maps of the distribution of peatlands based on the NPRI are reproduced at Figures B1 A & B.
B14 A total of 1,034 raised bogs are identified in Great Britain of which 207 are in England.

<u>The condition and nature conservation status of lowland raised bogs in England</u>
B15 The draft NPRI provides an assessment of the current condition of the raised bogs in Great Britain. Ten land-use classes are identified, as summarised in Box B1 and illustrated in Figure B2. The ninth and tenth categories which are not illustrated in the Box represent respectively bogs which have been built upon and those where the condition of the bog is unknown.
B16 Areas of peat bogs which retain primary peat surfaces and which were considered to be either near-natural (class P1), moribund (class P2) or drained (class P3) were measured from aerial photographs and maps. For areas affected by other land-uses, sites have been categorised on the basis of the best land cover (in terms of the condition class closest to the natural condition) found on the site, and on the most extensive land-use. This information has been taken from a variety of sources, which in most cases is less than 5 years old.
B17 A summary of the current condition of raised bogs in England is provided in Table B2 on the basis of the major condition or use of the bog, and for classes P1-P3 additional figures are given of the measured area. Similarly the area affected directly by planning permissions for peat extraction is provided.
B18 Of the original 207 raised bogs in England only 15 retain areas in a natural or near-natural condition (class P1), with an area of 493 hectares. A further 33 bogs retain areas of drained or moribund primary bog (Classes P2 and P3).
B19 Scrub encroachment onto primary bog (class P4) is identified as the major condition class on 14 sites in England, affecting a total bog area of almost 430 hectares.
B20 Woodland establishment is the major land-use on 41 sites in England with a total bog area of 1,730 ha.

B21 A large number of raised bogs have been damaged in the past by commercial and domestic peat extraction and have since been abandoned and are now in the process of regenerating. The NPRI identifies 15 sites where regeneration is identified as the major condition of the site (total bog area 1,160 ha).
B22 In England there are a number of bogs with secondary surfaces (sensu NPRI, in Class S1), which have a high proportion of peat-forming plant species and are therefore actively regenerating.
B23 The NPRI provides data on sites with planning permission for peat extraction. Seventeen bogs are identified to have planning permission for peat extraction, with a total permitted area of 6,360 hectares. These figures include sites such as Fenns/Whixall Mosses where the site has been purchased by English Nature, but where the permission has not been revoked and is therefore still valid, and areas given to English Nature by Fisons. (Note: the assessment of planning permissions made by DOE, which was based on individual site data provided by MPAs, identified the permitted area in England to be 5,793 hectares).
B24 The drainage of raised bogs for agriculture is identified as the greatest cause of damage to the natural condition of raised bogs. Agriculture is the major land-use on 92 bogs with a total area of almost 17,000 ha.

Raised bogs notified as SSSIs
B25 In England, 41 raised bogs have been notified as SSSIs, with a total area of 11,100 hectares, although in many cases the designation extends beyond the boundary of the bog. Some of these SSSIs are areas with active primary bog surfaces, but also there are considerable areas of secondary surfaces with characteristic Sphagnum - dominated plant communities. Nine of these bogs also have planning permissions for commercial peat extraction.
B26 Since the MPA data was collated, extraction has ceased on a considerable area of permissions within SSSIs. The total areas have been reduced by the combined purchase and lease of Fenns/Whixall Mosses by English Nature in 1990 and by the areas immediately protected under the agreement reached between English Nature and Fisons (now Levington Horticulture). Under the terms of the agreement, the ownership of all Fisons freehold peatland (3,240 hectares of lowland peat in Cumbria, Somerset, South Yorkshire and Humberside) have been conveyed to English Nature. All the land with nationally important vegetation (1,550 ha) is already under conservation management, with the rest being leased back to the peat company for managed peat extraction over an agreed timescale.
B27 A recent assessment suggests that 2470 ha of raised bog are still being worked within SSSIs, with a further 135 ha identified where working has not yet started. Continued extraction within SSSIs is now almost exclusively on existing bare peat areas which have little or no direct current conservation interest.
Figure B1A: Classified historical distribution of peatlands for England and Wales
Figure B1B: Classified historical distribution of peatlands for Scotland
Figure B2: Diagrammatic representation of raised bog condition classes (based on NPRI)

Box B1 - Summary of land-cover classes used in the NPRI

Class 1 (P1) Primary natural/near-natural
A primary dome with extensive Sphagnum-rich hummock-hollow microform features. Marginal drainage on almost all sites is thought to have reduced the natural prominence of the hummock pattern, and restricted the distribution of species typical of hollows.

Class 2 (P2) Primary degraded
Bogs damaged by fire may pass through a stand still phase where peat formation is interrupted by the removal of the natural surface vegetation. Vegetation may take over 20 years to reestablish. Degradation may also be caused by the lowering of the water table resulting in the increased colonisation by shrubs.

Class 3 (P3) Primary drained
Where the primary dome has had a network of drains installed, water is shed from the site causing drying of the surface layers. The intensity and age of drainage channels influences the degree of damage and composition of the vegetation. Vegetation may still retain features and species which occur on near natural bogs, although bog moss hummocks and hollows are lost.

Class 4 (P4) Primary open canopy
Drying out of the peat surfaces by drainage or removal of peat from the margins encourages the invasions of self-sown scrub (in particular birch). Water loss and leaf litter can effect moss species composition, and a limited range of Sphagna species are typical, most of which are not characteristic of open bog conditions in Britain.

Class 5 (P5) Primary closed canopy
Bogs affected by trees which have reached closed canopy stage. Trees may have established through natural encroachment but more commonly through deliberate planting. Tree cover exacerbates peat oxidation and shrinkage through loss of water by evapotranspiration. Some sites may retain typical bog species beneath the trees, but with many the original vegetation is lost.

Class 6 (S1) Secondary revegetating
A secondary bog is one where the surface layers of peat have been removed, usually through domestic or commercial peat extraction. Following abandonment of a site, vegetation reestablishes generally through natural regeneration. Species composition depends largely on the characteristics of the peat remaining, the quality of water retained on the site and available seed sources. Where the peat remains sufficiently wet and acidic, characteristic bog vegetation may reestablish and peat formation may restart.

Class 7 (S2) Secondary, active commercial peat extraction
Modern extraction techniques require large expanses of bare peat, which is drained in advance of working. The landform produced depends on the extraction techniques employed. Block cutting and milling are the two most common methods of extraction. As peat fields are repeatedly worked, vegetation establishment is prevented, and sites remain bare. The important aim of restoration is to establish conditions following extraction which enable appropriate species to reestablish.

Class 8 (A1) Archaic (agriculture)
Many peat bogs have been drained for agriculture. Continued drainage results in oxidation of the peat which results in the lowering of the surface. Ultimately fen peat, or mineral soils are exposed.

Table B1. The area and distribution of peatland types in GB

					Hectares
	Fen	**Raised Bog**	**Blanket Bog**	**Intermediate Bog**	**Total Area**
England	131672	37413	214138	948	384171
Wales	2867	4086	158770	85	165808
Scotland	1215	27890	1056198	10652	1095955
Total	135754	69389	1429016	11685	1645844
Source: NPRI (draft)					

Table B2. The major land-cover classes of raised bogs in England, and measured areas of primary near natural (class P1), primary degraded and drained bog (classes P2 & P3) and commercial peat extraction

	Major land cover		**Measured area**		
Condition Class	**Number of bogs**	**Area (ha)**		**Number of bogs**	**Area (ha)**
Primary near-natural (P1)	1	8		15	493
Primary degraded (P2)	9	1699	(Classes P2 & P3)	33	1391
Primary drained (P3)	13	562			

Primary Scrub (P4)	14	427			
Closed canopy woodland (P5)	41	1734			
Secondary regenerating (S1)	15	1163			
Secondary moribund (S2)*	15	14498**		17	6360
Agriculture (A1)	92	16972			
Built (A2)	7	350			
Condition unknown (U)	0	0			
Total	**207**	**37413**			
* Including commercial peat extraction.					
** This figures does not represent the area either permitted for, or actually affected by commercial peat extraction. Refer to main text for further details.					
Source: NPRI (draft)					

Peatlands and the Habitats Directive

B28 The Habitats Directive, in Annex 1, lists the following peatland habitat types, although not all of these occur in the UK.

Raised bogs and mires and fens

Sphagnum acid bogs

51.1 *Active raised bogs
51.2 Degraded raised bogs (still capable of natural regeneration)
52.1 and 52.2 Blanket bog (*active only)
54.5 Transition mires and quaking bogs
54.6 Depressions on peat substrates (Rhynchosporion)

Calcareous fens

53.3 *Calcareous fens with Cladonium mariscus and Carex davalliana
54.12 *Petrifying springs with tufa formation (Cratoneurion)
54.2 Alkaline fens
54.3 *Alpine pioneer formation of Caricion bicoloris-atrofuscae.
(* indicates a priority habitat).

B29 Two types of acid peatland occurring in the UK, active raised bogs and active blanket bogs, are priority habitats. A joint scientific committee of the EC is preparing an explanatory memorandum for the Directive, including definitions. The final definitions for these two habitat types have been agreed and adopted by the Adaptation Committee of the Habitats Directive, and are presented in Boxes B2 and B3.

Box B2

51.1 *Active raised bogs

habitat code: 7110 corine 91:51.1

Raised bogs and mires and fens/Sphagnum acid bogs

1) Active raised bogs

2) Acid bogs, ombrotrophic, poor in mineral nutrients, sustained mainly by rainwater, with a water level generally higher than the surrounding water table, with perennial vegetation dominated by colourful Sphagnum hummocks allowing for the growth of the bog (Erico-Sphagnetalia magellanici, Scheuchzerietalia palustris p., Utricularietalia intermedio-minoris p., Caricetalia fuscae p.). Typically, pools may be present in western United Kingdom and Ireland. The term "active" must be taken to mean still supporting a significant area of vegetation that is normally peat forming, but bogs where active formation is temporarily at a standstill, such as after a fire or during a natural climatic cycle eg, a period of drought, are included.

3) Plants: Erico-Sphagnetalia magellanici p Andromeda polifolia, Carex pauciflora, Cladonia spp., Drosera rotundifolia, Eriophorum vaginatum, Odontoschisma sphagni, Sphagnum magellanicum, S. imbricatum, S. fuscum, Vaccinium oxycoccos. Scheuchzerietalia palustris p., Ultricularietalia intermedio-minoris p., Caricetalia fuscae p. Carex fusca, C. limosa, Drosera anglica, D. intermedia, Eriophorum gracile. Rhynchospora alba, R. fusca, Scheuchzeria palustris, Utricularia intermedia, U. minor, U. ochroleuca. Animals: Dragonflies ~ Leucorrhini dubia, Aeschna subartica, A. caerulea, A. juncea, Somatochlora arctica, S. alpestris. Butterflies ~ Colias palaeno, Boloria aquilonaris, Coenonympha tullia, Vacciniina optilete, Hypenodes turfosalis, Eugraphe subrosea. Spiders ~ Pardosa sphagnicola, Glyphesis cottonae. Ants ~ Formica transkaucassia. Cricket/Grasshopper ~ Metrioptera brachyptera, Stethophyma grossum.

4) Geographical distribution: Belgium, Denmark, Germany, Spain (Pyrenees and Cantabrian mountains), France, Italy, Ireland, Netherlands and United Kingdom. Variations can occur depending on local climatic and geomorphological conditions. In Belgium, this habitat is only present in High Ardennes; a typical site is the Fagne wailone. Corresponding category in the United Kingdom National Vegetation Classification:"M1 Sphagnum auriculatum bog pool community","M3 Eriphorum angustifolium bog pool community","M18 Erica tetralix-Sphagum papillosum raised and blanket mire","M20a Eriophorum vaginatum blanket and mixed mire - species poor sub community".

5) In order to support the conservation of this ecosystem over its geographic range and its genetic diversity, marginal areas of lower quality as a result of damage or degradation which abut active raised bogs may need to be included, protected and, where practicable, regenerated. There are very few intact or near-intact raised bogs in Europe.

Box B3

52.1 and 52.2 - Blanket bog (*active only)

habitat code: 7130 - corine 91: 52.1 and 52.2

Raised bogs and mires and fens/Sphagnum acid bogs

1) Blanket bog (*active only)

2) Extensive bog communities or landscapes on flat or sloping ground with poor surface drainage, in oceanic climates with heavy rainfall, characteristic of western and

	northern Britain and Ireland. In spite of some lateral water flow, blanket bogs are mostly ombrotrophic. They often cover extensive areas with local topographic features supporting district communities [Erico-Sphagnetalia magellanici: Pleurozio purureae-Ericetum tetracilis, Vaccinio-Ericetum tetracilis p; Scheuchzerietalia palustris p., Utricularietalia intermedio-minoris p., Caricetalia fuscae p.]. Sphagna play an important role in all of them but the cyperaceous component is greater than in raised bogs. The term "active" must be taken to mean still supporting a significant area of vegetation that is normally peat forming. 3) Plants: 52.1 ~ Calluna vulgaris, Campylopus atrovirens, Carex panicea, Drosera rotundifolia, Erica tetralix, Eriophorum vaginatum, Molinia caerulea, Myrica gale, Narthecium ossifragum, Pedicularis sylvatica, Pinguicula lusitanica, Pleurozia purpurea, Polygala serpyllifolia, Potentilla erecta, Racomitrium languginosum, Rhynchospora alba, Schoenus nigricans, Scirpus cespitosus, Sphagnum pulchrum, S. strictum, S. compactum, S. auriculatum. 52.2 p Calluna vulgaris, Diplophyllum albicans, Drosera rotundifolia, Empetrum nigrum. Erica tetralix, Eriphorum vaginatum, Mylia taylorii, Narthecium ossifragum, Rubus chamaemorus, Scirpus caespitosus, Vaccinium myrtillis. Animals: Pulvialis apricana, Calidris alpina. 4) Geographical distribution: France, Ireland and United Kingdom. Sub-types of the British Isles: 52.1 ~ Hyper-Atlantic blanket bogs of the western coastlands of Ireland, western Scotland and its islands, Cumbria, Northern Wales; bogs locally dominated by sphagna (Sphagnum auriculatum, S. magellanicum, S. compactum, S. papillosum, S. nemoreum, S. rubellum, S. tenellum, S. subnitens), or, particularly in parts of western Ireland, mucilaginous algal deposits (Zygogonium). 52.2 ~ Blanket bogs of high ground, hills and mountains in Scotland, Ireland, Western England and Wales. Corresponding category in the United Kingdom National Vegetation Classification: "M1 Sphagnum auriculatum bog pool community","M15 Scirpus caespitosus-Erica tetralix wet heath","M17 Scirpus caespitosus-Eriophorum vaginatum blanket mire","M18 Erica tetralix-Sphagnum papillosum raised and blanket mire","M19 Calluna vulgaris-Eriophorum vaginatum blanket mire","M20 Eriophorum vaginatum blanket mire". 5) In the United Kingdom discrete areas of raised bog and blanket bog may occur in some districts, showing their characteristic differences. In many other areas, however, peatlands which may have begun as raised bog have become merged in a general expanse of blanket bog, losing their distinctive marginal features. Within these blanket bogs, there are other peat-forming systems which, strictly speaking, form part of various biotopes of aquatic and amphibious zones, fens and moorland.	
Annex C	**Annex C - Trends In The Use Of Peat And Alternative Materials** C1 MAFF have provided projections in these guidelines for the medium term demand for peat and alternatives by the professional horticulture industry. Research undertaken by independent consultants for DOE provided demand forecasts for the amateur gardening, private sector landscaping and local authority sectors. The MAFF projections initially looked to the year 2000, and the consultants' study to 2003. For the purposes of these guidelines, both sets of data have been projected forward to 2005. <u>Professional horticulture</u> C2 Trends in use of peat by the professional horticulture sector have been based on consideration of requirements of individual horticultural sectors, and the predicted availability and uptake of alternatives. C3 Since 1980 there have been increases in demand for peat by all sectors (with the exception of glasshouse salad crop production and for soil conditioning). However, the container nursery stock and bedding plant sectors contributed most to this increase (200% and 150% increases respectively). It is anticipated that by 2000 the increase in use will continue, but at a more modest rate. The nursery stock and bedding plant sectors are expected to continue to show the greatest expansion. C4 MAFF predict that on the basis of recent trends, by the year 2000 the demand for peat by the professional horticultural industry will increase by 14% to about 1.1 Mm^3. Over the same period the use of alternatives is expected to increase by 95% to 39,000 m^3, although this will still only account for 4% of total substrate use. Almost all of the peat used by the industry is as a growing medium (95%). The use of peat for soil improving by the professional horticultural industry has reduced from 70,000 m^3 in 1980, to 50,000 m^3 in 1990, and is expected to have been phased out completely by the year 2000. <u>Amateur gardening</u> C5 The key factor affecting the quantities of materials used for soil improvers and growing media has been assumed to be the overall growth in amateur gardening as a leisure activity. It has been assumed that the overall growth rate will continue to be about 1-1.5% per annum through the next decade. C6 Following the trend observed between 1988 and 1993, growing media are predicted to take up an increasing proportion of the total market, which will maintain growth in demand for peat. C7 Greater substitution of peat in this sector is expected to occur only when the performance of alternatives as growing media is improved. The predictions are based on the assumption that there are no rapid developments in the quality of alternatives, although it is accepted that should this occur, it is likely that there would be a shift	

	towards greater use of alternatives by the turn of the century. C8 Over 80% of peat used by the amateur gardener is as a growing medium (1.23 million m^3), with only 239,000 m^3 used for soil improving. C9 It is estimated that the rate of growth in peat consumption will probably peak later in the 1990's and by 2003 and demand is estimated to reach between 1.6 and 1.7 million m^3. Demand for alternative materials is expected to increase from 273,000 m^3 to around 380,000 m^3 over the next 10 years. Local authorities C10 Local authorities have undergone a dramatic change in their pattern of materials consumption since 1988, primarily as a result of policy decisions. There has been a decline in the consumption of growing media and consequently of peat, but alternatives are being purchased at an increasing rate as soil improvers. However, this is in total the smallest of the 4 main market sectors. C11 The overall market is assumed to be stable, assuming the requirements of local authorities to be unlikely to change greatly. Consumption of peat in 1993 was estimated to total 22,800 m^3, of which 70% was used as a growing medium. C12 The use of peat by local authorities is predicted to decline by 60% to 9,000 m^3 by 2003. Within the same period alternatives are predicted to increase by about 10% from their 1993 level of 195,800 m^3, to around 215,000 to 220,000 m^3. Alternatives are therefore expected to account for 96% of total substrate use in 2003 compared with 90% in 1993. Private sector landscaping C13 The use of materials by the landscaping market has increased significantly since 1988, primarily because of an increase in the consumption of soil improvers, which has largely centred on the use of peat alternatives. This has in turn increased the consumption of non-peat materials, reflecting the bias towards the use of locally sourced materials. However, this may mean that much of the potential for substitution of peat has already occurred. C14 It is assumed that the growth in this sector will track the economy, resulting in an aggregate growth of 10% over the next 5 years, slowing to 7% over the succeeding 5 year period to 2003. C15 Peat use in 1993 was estimated to total 58,100 m^3, and is predicted to decline by 59% to 24,000 m^3 by 2003. The use of peat as a soil improver within this sector is expected to decline from about 9% of total substrate use to about 3.5% by 2003. The use of alternatives is expected to increase overall by about 27% between 1993 and 2003 from 497,600 m^3 to around 630,000 m^3.	
Annex D	Annex D – Guidelines for the rehabilitation of raised bogs D1 Peat bogs that have been damaged by mineral extraction can be restored to a range of after-uses. In the past these have included agriculture and forestry, or where abandoned they have revegetated naturally. In the latter case the nature of the colonising vegetation is strongly influenced by a variety of site factors, including topography, hydrology, physical and chemical characteristics, and the availability of colonising species. D2 The loss of raised mires to other land-uses in the past, and their current limited distribution, has created much interest in the possibility of rehabilitating damaged sites to reinstate raised bog habitats. Research undertaken for the Department on the rehabilitation of lowland peat bogs, provides guidelines for recreating raised bog habitats as well as alternative afteruses. The report stresses the need to consider the current condition of sites when determining the most appropriate after-use, and identifies circumstances under which the recreation of raised mires may not be feasible. A range of working practices to facilitate rehabilitation of sites are proposed. A summary of the principle approaches to reclaiming sites to raised bogs or other forms of wetland after-use are summarised below. D3 The rehabilitation of cut-over peatlands to raised bog, may be achieved by following three different paths: direct colonisation of peat and waters by plants and mosses associated with typical bog vegetation; natural succession from fen; or natural succession over open water via fen. All three approaches, and in particular the last two, require long periods of time to achieve fully. The aim of restoration must therefore be to create environmental conditions which are conducive to the development of acid mire vegetation and peat accumulation. To achieve this the site must have a consistently wet surface, maintained primarily by rainfall and have chemical conditions which allow the development of peat forming vegetation types, dominated by Sphagnum species. D4 The surface configuration left after peat cutting will greatly influence the ability to rehabilitate a site successfully. This will depend largely on the method and duration of peat cutting and the extent of drainage. Block cutting leaves a regular system of baulks, flats and trenches when extraction ceases which are usually dry, damp and wet respectively. The surfaces remaining after milling and extrusion are generally bare and dry, and usually cover large areas. The bare peat is likely to be compressed as a result of drainage and the passage of machinery. D5 The complete removal of the vegetation over large areas of peatlands as in some extraction processes (eg milling) delays the start of the rehabilitation process until most of the peat has been harvested, and can result in the complete loss of the bog flora and fauna from the whole site. Where vegetated, unworked areas exist they can provide refugia for species characteristic of raised mires. D6 Guidelines on appropriate working and reclamation methods will be site specific. However, the following principles should be considered and implemented wherever possible: i) Critical refugia areas should be identified and steps taken to preserve or enhance their existing conservation interest. Such areas should not be subject to further peat extraction, unless as part of an agreed rolling programme of peat extraction and restoration. ii) If feasible and necessary, a buffer zone of undisturbed peat should be designated around the core part of any refugia, which should also remain uncut.	

	iii) Work should start on the restoration of abandoned areas and the maintenance of refugia as soon as possible so that dehydration is minimised. iv) Peat should be extracted in such a way as to leave upstanding baulks at agreed intervals. These may be supplemented by constructed baulks after operations have ceased. v) If feasible, operations should be phased such that: a) areas closest to refugia should be abandoned first, leaving sufficient depths of peat. b) contiguous areas should be finished in sequence. vi) A suitable depth of ombrotrophic peat should be left in situ, where this will assist in site rehabilitation. Sufficient peat should also be left to allow for constructs to impound water. This depth may vary according to the nature of the peat and the underlying substratum and its topography. vii) Drains should not be dug into mineral subsoil (unless it is impermeable). viii) Where possible,`nursery' pools for the `farming' of Sphagnum should be initiated, to provide an inoculum for abandoned areas. ix) Drainage operations should be assessed, and where possible redesigned to minimise impacts on remnants and areas undergoing restoration. In low rainfall areas it may be desirable to pump drainage water into abandoned peat workings, subject to the quality of the pumped water. <u>Site management</u> D7 Vegetation management should be undertaken as soon as production ceases to reduce the establishment of undesirable species. D8 Long term intermittent management will be required beyond a 5 year aftercare period. The restoration scheme should be designed to minimise on-going management requirements but also to make it practicable for them to take place. D9 It may be necessary to consider inoculation of restored sites with the desirable species. This could be started in abandoned areas well in advance of complete cessation of extraction. When doing so, consideration should also be given to the possible effects that the deliberate or consequential introduction of plants and animals, including invertebrates, might have on local genotypes. <u>Other wetland after-uses</u> D10 It many situations it may not be possible, practical or desirable to reinstate ombrotrophic bog conditions. Examples include sites where insufficient ombrotrophic peat remains to prevent ingress of nutrient rich water, or where drains have extended into the mineral strata below the bog. D11 A number of alternative restoration options are possible depending on site specific conditions including the development of open water areas, reedbeds, fen, fen woodland or fen meadow. The choice of after-use will depend to a large extent on the topography of the site, the water levels that can be maintained and the quality of the water used. D12 Where the mineral substrate is exposed, restoration options will be influenced by the physio-chemical characteristics of the mineral material, which may, for example, vary from very acidic gravels to base-rich clays. Water tables may also be subject to variation as a result of drainage on adjacent land and abstraction from underlying aquifers. This may affect the ability of wetland to develop. Further guidance on reclamation options is given in Shaw and Wheeler (1995).	
Annex E	**Annex E - Bibliography** <u>Primary legislation</u> Ancient Monuments and Archaeological Areas Act 1979 Wildlife and Countryside Act 1981 Environmental Protection Act 1990 Town and Country Planning Act 1990 Planning and Compensation Act 1991 <u>Statutory Instruments</u> Town and Country Planning (Assessment of Environmental Effects) Regulations 1988 Conservation (Natural Habitats &c.) Regulations 1994 <u>DOE Circulars</u> 15/88: Environmental Assessment <u>Minerals Planning Guidance Notes</u> MPG 1 - General Considerations and the Development Plan System (1988, under revision)	

	MPG 4 - The Review of Mineral Working Sites (1988) MPG 7 - The Reclamation of Mineral Workings (1989, under revision) Planning Policy Guidance Notes PPG 1 - General Policy and Principles (1992) PPG 2 - Green Belts (1995) PPG 7 - The Countryside and the Rural Economy (1992) PPG 9 - Nature Conservation (1994) PPG 12 - Development Plans and Regional Planning Guidance (1992) PPG 13 - Transport (1994) PPG 15 - Planning and the Historic Environment (1994) PPG 16 - Archaeology and Planning (1990) Other Publications Aspinwall and Company (1993). Criteria for Soil Improver Ecolabels. Report to UK Ecolabelling Board. Aspinwall and Company (1994). Peat-based and alternative products in the gardening and landscape markets. DOE, London. Coles, B.(1995). Wetland Management, a Survey for English Heritage. WARP Occasional Paper 9, University of Exeter. Confederation of British Industry (1991). Archaeological Investigations: Code of Practice for Mineral Operators (in England & Wales). Countryside Commission, English Heritage & English Nature (1993). Conservation Issues in Strategic Plans. Countryside Commission Postal Sales. Department of the Environment (1989). Environmental Assessment: A Guide to the Procedures. HMSO London. Department of the Environment (1992). Review of the provisions of the Town and Country Planning (Minerals) Act 1981: Old Mineral Permissions. Department of the Environment (1994). Review of the provisions of the Town and Country Planning (Minerals) Act 1981: a consultation paper on The Reform of Old Mineral Permissions 1948-1981. Department of the Environment (1994). Biodiversity: The UK action plan. HMSO London. Department of the Environment (1994). Sustainable development: The UK strategy. HMSO London. Department of the Environment (1994). Report of the Working Group on Peat Extraction and Related matters. DOE, London. Joint Nature Conservation Committee (1994). Guidelines for selection of biological SSSIs: bogs. Peterborough. Lindsay, R.A., Andrews, J., Gordon, J. and Immirzi, C.P.(draft April 1994). Lowland raised bogs in Great Britain. A first assessment from the National Peatland Resource Inventory. Scottish Natural Heritage. Nature Conservancy Council (1989). Guidelines for selection of biological SSSIs. Peterborough. Scottish Office Environment Department (1994). National Planning Policy Guideline (NPPG) 4: Land for Mineral Working. Wheeler, B.D. and Shaw, S.C.(1995). The rehabilitation of lowland peat bogs affected by peat extraction. HMSO, London.	

MPG15: PROVISION OF SILICA SAND IN ENGLAND - POLICY

PARAGRAPH	POLICY WORDING	COMMENTS
28	National policy framework Supply The Government believes that for the economic well-being of the country it is essential that the silica sand consuming industries continue to receive an adequate and steady supply of indigenous raw material so that they can continue to meet the needs of the community for products which use silica sand in their manufacture. It is important that supplies to the manufacturing sector should be provided in the most environmentally acceptable way and with regard to the principles of sustainable development.	
30	Sustainable development For silica sand, this means that the planning system should ensure that the best and most efficient use will be made of the available resources, so that the extraction of new reserves is limited to what is necessary to meet the needs of the current generation; and that the overall quality of the environment affected by silica sand extraction should be maintained or improved over time. Silica sand deposits should not be sterilised by other forms of development which would make them unavailable for use by future generations without good land-use planning reasons. It is desirable that high grade silica sands should as far as possible be conserved for use where they are required.	Specific policy – last sentence
31	Use of materials It is important that silica sand resources should be used as efficiently as possible and that unnecessary wastage of resources should be avoided. Within the general definition of silica sand, there are certain high grade materials which, wherever possible, should be reserved for industrial end-uses which require such sand and for which there is no readily available alternative. …It is in the national interest that high grade silica sand should not be wasted and that its use in the construction industry should be minimised…	Appropriate use important distinction from construction sands.
32	Recycling … MPAs and the extracting and consuming industries should therefore consider what steps they can take to encourage re-use/recycling where there are environmental benefits to be gained…	
33	In recent years, the glass and foundry industries have made efforts to recycle, both to save sand and to reduce energy consumption. The Government wishes to encourage this and looks to the consumer industries to monitor the amounts of their products which are re-used or recycled and, where appropriate, to set targets for increased re-use/recycling	Specific policy.
37	The Government encourages greensand operations to aim as far as possible to achieve a high level of recycling. In the case of resin sand operations, the Government encourages industry to strive for technological advances which will increase the amount of recycling of this type of sand.	Specific policy.
38	… The consumer industries are encouraged to explore further the scope for such innovation, including technology which would enable the quantities of silica sand required to be reduced further.	Specific policy.
40	E Development Plans Silica sand provision in development plans In carrying out their development plan functions, local authorities in areas which have historically produced silica sand, or are known to contain silica sand deposits, should take into account the policies contained in this MPG. They should recognise the material scarcity of silica sand and also aim to make provision in their development plans for an appropriate level of production which takes account not only of recent production levels in the area, but also of regional and national needs, through the identification of specific sites and the inclusion of preferred areas or areas of search…	
41	To ensure that the areas identified in the development plan can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that the land is: i. underlain by potentially economically workable deposits of mineral; and ii. likely to become available to the minerals industry within the plan period. Where these points cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. Plans must be clear and unambiguously expressed in accordance with PPG12 .	
45	Landbanks However, MPAs in areas containing silica sand deposits need to make an appropriate contribution to national requirements and should therefore aim to maintain landbanks of silica sand permissions, as far as this is possible and realistic, provided that the industry comes forward with suitable applications.	Specific policy.
47	Due to the national need for silica sand, it is important that each production site is adequately provided for, unless exceptional circumstances prevail. In practice, this will mean that most sites will require a reasonable level of reserves. MPAs should aim therefore to ensure that landbanks of at least 10 years are maintained for individual sites. However, in operating this policy, MPAs will also need to consider the Government's general policy of encouraging competition. The need for the mineral must be balanced against environmental constraints and there may be overriding environmental reasons why the stock of permitted reserves at some sites may not be replenished as they are used up. Care and flexibility will be needed in addressing these issues. In practice, there may be difficulties as production data may be confidential at site level, but it may be difficult to calculate landbanks or to make specific provision in mineral local plans without this information. It will therefore be in both the MPAs and	Specific policy.

	industry's interests to maintain a dialogue and informed analysis of actual need and supply	
48	In the case of significant new capital investment by the industry in existing or new sites, it may be necessary for the plant to be provided with a stock of permitted reserves to provide for at least 15 years, or substantially longer than this, for greenfield sites, depending on the circumstances.	Specific policy.
53	Safeguarding Silica sand is a scarce resource and MPAs should, as far as possible and in co-operation with other planning authorities, safeguard deposits which are, or may become, of economic importance, against other types of development or other constraints which would be a serious hindrance to their extraction.	Specific policy.
54	It is essential to consider the need for silica sand over a longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the timescales and scale of investment of the proposed mineral working in order to prevent undue delay. Where it is possible to extract silica sand prior to some other more permanent form of development this should be encouraged unless there are good planning reasons for not doing so. MPAs may define Mineral Consultation Areas (MCAs) in their plans. These enable county and district councils to liaise where surface development would be likely to affect or be affected by the winning and working of minerals. MPG1 (paragraphs 36-39) provides further advice on MCAs	Specific policy. – some repetition with MCAs.
63	F Considering individual planning applications General Planning applications should be determined in accordance with the development plan unless material considerations indicate otherwise. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered the potential effects when preparing planning applications and has sought to mitigate them as appropriate.	
69	Environmental effects The silica sand industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns on site operation and restoration. Any environmental damage or loss of amenity caused by mineral working should be kept to a minimum.	
77	Transport Planning authorities should, as far as they reasonably can, safeguard existing rail head facilities and encourage new ones…	
80	Working practices, restoration, aftercare and after-use … Planning applications should include comprehensive plans and statements as to how sites will be progressively worked with a view to achieving particular restoration enabling appropriate after-use to take place.	
85	MPAs and the industry should bear in mind opportunities for habitat creation and enhancement even where nature conservation may not be the primary end-use of a site.	
88	MPAs must take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of silica sand in a manner compatible with environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied.	
89	G Implementation …The industry should endeavour to ensure that proposals for mineral development reflect this Guidance Note and that they are brought forward at the right time. The industry is also responsible for drawing up quarry plans, in consultation with the mineral planning authorities; for achieving a high standard of operation while the site is being worked; and for restoring the site when working has finished.	

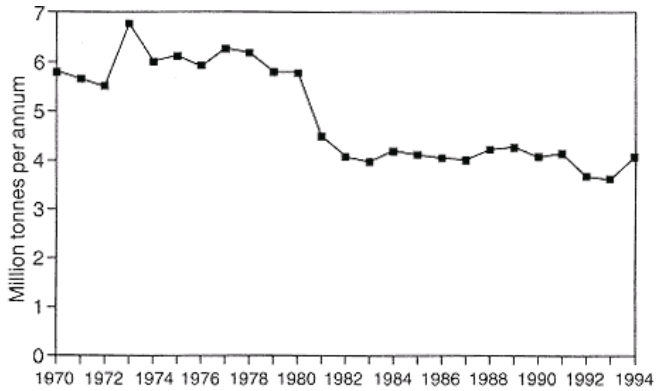
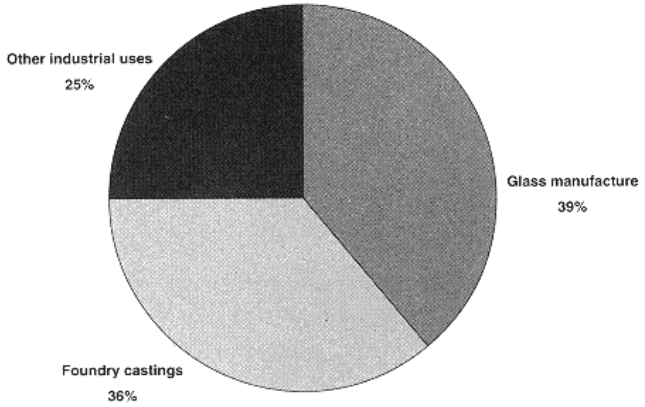
MPG15: PROVISION OF SILICA SAND IN ENGLAND - GUIDANCE

PARAGRAPH	GUIDANCE WORDING	COMMENTS
	Overview Minerals Planning Guidance Notes set out the Government's policies on different aspects of minerals planning. Minerals planning authorities must take their content into account in preparing their development plans. The guidance may also be material to individual planning applications and appeals. This MPG replaces the guidance given in DOE Circular 24/85 which is hereby cancelled.	
	This guidance: • emphasises that silica sand is an essential raw material for many industrial processes including the manufacture of glass, production of foundry castings and ceramics; • advises that silica sand is geologically and geographically sparsely distributed and that, consequently, the mineral is a valuable resource of recognised national importance; • advises that silica sand extraction, as with other minerals, has an impact on the environment which must be carefully balanced against the needs of the community for the mineral; • provides advice to ensure that there is an adequate and steady supply of silica sand for the consuming industries; • at the same time emphasises that supply must be maintained at the best balance of social, environmental and economic cost, whilst ensuring that extraction and development are consistent with the principles of sustainable development; • sets out the policies with regard to extraction from environmentally sensitive areas; • encourages efforts to recycle, to reduce the impact of extraction on the environment.	
1	Introduction Background 'Silica sand' (also known as 'industrial sand') is sand which contains a high proportion of silica in the form of quartz and is marketed for purposes other than for direct use in the construction industry. It is produced from both unconsolidated sands and crushed sandstones, with processing to marketable form being of varying degrees of complexity depending on end-use. Silica sand is an essential raw material for the glass and foundry casting industries, as well as in other industries such as ceramics and chemicals manufacture and for water filtration purposes.	
2	It is important that an adequate supply of silica sand is maintained from all sources. High quality silica sands are scarce, with extraction concentrated in a few areas in this country. The demand for land to be used for mineral extraction may lead to conflicts with other land use demands such as agricultural or amenity uses. There will therefore be a need to protect unworked silica sand deposits against sterilisation by other forms of development except where there are overriding planning reasons for releasing this land for other purposes. The general policy on the role of the planning system in safeguarding deposits is set out in paragraphs 36 to 39 of Minerals Planning Guidance Note 1 (MPG1).	
3	The working of minerals has environmental implications for communities and landscapes and this must be carefully balanced against the need for the mineral. Extraction may be constrained by consideration of such matters as landscape, amenity, nature conservation, agriculture, and water interests.	
4	The preparation of this Guidance Note, which applies only to England, has benefited from the aid of an Advisory Group which included representatives of the Minerals Planning Authorities (MPAs), silica sand producing and consuming industries, the British Geological Survey, and central Government. A survey of production, consumption and distribution was conducted by the Department of the Environment (DoE) in 1991.	
5	B: Aims The aims of this Guidance Note are: i. to provide guidance on how an adequate and steady supply of indigenous material to the silica sand consuming industries, at a national, regional and local level, may be maintained at the best balance of social, environmental and economic cost, through full consideration of the resources and the principles of sustainable development; ii. to provide a clear framework within which MPAs can develop policies for silica sand in development plans and carry out development control; iii. to serve as a national framework for the Secretary of State: a. when formulating Regional Planning Guidance; b. when exercising his functions under Town and Country Planning legislation in respect of development plans; and c. when considering individual planning applications on appeal and any applications called in for determination; iv. to help to reduce the number of planning appeals; and v. to provide the basis for informed consideration at national, regional and local level of the implications for silica sand working of other policies.	
6	C National Overview Production and consumption In 1994 the production of silica sand was approximately 4.0 million tonnes - see Table 1 and Figure 1. Production in Great Britain is approximately in line with domestic consumption.	

Table 1: Great Britain: Production of silica sand (000 tonnes)

Year	Production
1970	5782
1971	5645
1972	5478
1973	6775
1974	5990
1975	6139
1976	5901
1977	6283
1978	6224
1979	5829
1980	5708
1981	4451
1982	4123
1983	4026
1984	4328
1985	4178
1986	4108
1987	4029
1988	4340
1989	4380
1990	4132
1991	4201
1992	3615
1993	3587
1994	4038

Source
1970 - 1993 - Business Monitor "Minerals"
1994 - Business Monitor "Mineral Extraction in Great Britain"

	Figure 1: Great Britain: Production of Silica Sand 1970 – 1994  	
7	The principal uses of silica sand are for glass manufacture (approximately 39%) and foundry castings (approximately 36%). Other uses (25%) include in the ceramics and chemicals industries and for water filtration purposes. The breakdown of production according to main end-uses is shown in Figure 2. Figure 2: Silica Sand Production in 1994  	
8	A survey of production and reserves conducted by DoE showed that 34 output units operated by 20 companies were productive in England in 1990. Of these, less than half produced more than 85% of the total output. In addition, 6 further units did not produce silica sand in 1990, but had permitted reserves. These figures reflect changes that have occurred and are continuing to occur within the industry. The market requirement for higher quality processed sands is tending to focus attention on fewer sites with high quality raw materials and more sophisticated processing plant. The suitability of some of the currently permitted reserves for industrial applications may be neither economically nor practically viable in the future.	
9	The silica sand industry has been characterised by changes in the relative importance of the consuming sector. The biggest historical consumer has been the foundry industry, but consumption by this sector in recent years has been exceeded by that for glass manufacture. The consumer industries are changing fundamentally in response to different external pressures, including environmental legislation, competition and pressure to recycle and reduce energy consumption.	

10 Future need for silica sand

The need for silica sand can be related to the demands of the consuming industries. Demand through the 1980s was between 4 and 4.4 million tonnes per annum (mtpa). A long term projection to 2011 produced in 1992 is presented in Annex A. This shows that demand is projected to rise only very slightly from recent levels.

11 This projection is not a target for production, nor can it be used to denote the level of demand over the short term, in any one year or a small group of years; neither can it be used for forecasting future landbank requirements (see paragraphs 43-52). Care should therefore be exercised when comparing actual production data against the projected demand.

12 Trade

International trade in silica sand is small. Data for exports and imports for the years 1988-94 are shown in Table 2. Imports are mainly from Belgium and the Netherlands and, to a lesser extent, from France and Germany. Exports consist mainly of resincoated sands, glass sands, and sands for silicon carbide manufacture and for water filtration purposes, and are mainly to the Irish Republic, Sweden and Norway, although small quantities of filter sands may be shipped worldwide. Some sand is shipped to the Far East and Australia for use in paint manufacture. Silica sand products, including silica flour and cristobalite (a value-added product based on calcined sand), are also exported to the USA, Japan and Malaysia. These products are used as fillers and for investment casting in dentistry and jewellery.

Table 2: United Kingdom: Exports and imports of silica sand(a) (000 tonnes)

Year	**Exports**	**Imports**
1988	25.2	58.6
1989	43.6	49.9
1990	44.5	43.7
1991	57.6	25.6
1992	53.9	18.2
1993 (b)	74.8	51.6
1994	67.8	119.8

Footnotes
(a) Silica sand including quartz sands
(b) Following the introduction of the Single Market on 1 January 1993 different data collection systems have been used and subsequent data are not directly comparable with 1992 and previous years.
Source: 1988 - 1992 - Business Monitor MA20 "The Overseas Trade Statistics of the UK"
1993 - 1994 - Business Monitor MM20 "Overseas Trade of the UK (extra-EC)"
-Business Monitor MQ20" Overseas Trade of the UK (intra-EC)"

13 Regional position

Extraction of silica sand in England is concentrated in some areas more than others (Map 1). Production of silica sand by place of origin and end-use for 1994 is shown in Table 3. A breakdown of total sales by county is given in Table 4.

Map 1: Locations of silica sand quarries in England, active in 1990, according to geological age of extracted deposit

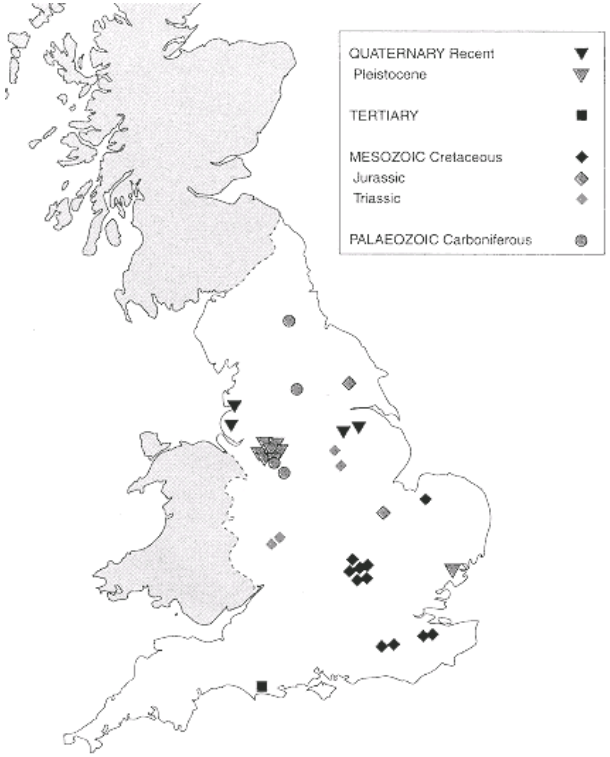


Table 3: England: Silica sand production by end-use and place of origin in 1994 (000 tonnes)

Foundry		**Other**	**Glass**	**Other Industrial**	**Total**
Naturally bonded					
North	2	-	-	8	10
Yorks & Humb	-	*	*	*	124
N. West	-	914	*	*	1635
W. Midlands	*	-	*	*	*
E. Midlands	*	*	-	*	*
E. Anglia	*	*	*	*	*
S. East	*	*	*	292	778
S. West	-	*	-	*	

	Total	156	1263	*	*	3477

Footnote
* withheld to avoid disclosure of confidential data
- nil or less than half the final digit shown
Source: Business Monitor "Minerals Extraction in Great Britain" 1994

Table 4: England: Extractor's sales of silica sand by place of origin in 1994 (000 tonnes)

England **County**	**Total Sales**
Durham	10
North Yorkshire)	124
Lancashire)	1635
Staffordshire	*
Hereford/ Worcester	26
Nottinghamshire	*
Cambridgeshire	3
Norfolk	*
Suffolk	*
Essex	*
Bedfordshire	*
Surrey	*
Kent	*
Dorset	*
Cornwall	*

Note:
* withheld to avoid disclosure of confidential data
Source:
Business Monitor: "Minerals Extraction in Great Britain" 1994

14 A DoE survey of production and reserves in Great Britain in 1990 (unpublished data - DoE, 1991) demonstrated that production was chiefly concentrated in the following areas: Scotland, Cheshire, Merseyside, Staffordshire, North Yorkshire, Humberside, Nottinghamshire, Surrey, Kent, Bedfordshire, and Norfolk. In terms of planning regions, NW England was the largest producer of silica sand in 1994, nearly a half of total British output being from this region.

15 Production of silica sand for use in glass manufacture is concentrated predominantly in Scotland, Cheshire, Staffordshire, North Yorkshire, Humberside, Norfolk, Surrey and Kent. Silica sand for foundry uses is chiefly from Cheshire, but also from the West Midlands, Nottinghamshire, Yorkshire, Humberside, Norfolk, Bedfordshire, Surrey, Kent and Scotland.

16 Historically, the extraction and consuming industries have to some extent been located fairly close to each other. However, in recent years, transport infrastructure and regional economic changes have meant that producers may be located at considerable distances from their customers. Glass for containers is manufactured chiefly in West and South Yorkshire, Central Scotland, and to a lesser extent in Essex; and that used for crystal glassware is manufactured mainly in the West Midlands. Flat glass is produced largely in Merseyside. The foundry industry is concentrated predominantly in the West Midlands, but plants are also located in the East Midlands, South

	Yorkshire/Humberside, the Stoke-on-Trent area, North West England including the Manchester area, North East England, and the Glasgow-Edinburgh area of Scotland. The ceramics industry is concentrated in the Potteries of the Stoke-on-Trent area.	
17	The above description indicates the general location of silica sand deposits and the industry. MPAs in other areas should also take account of this guidance in drawing up minerals local plans.	
18	Special features of silica sand and the location of the industry It is important to recognise some fundamental differences between the silica sand and construction sand industries. These differences may give rise to a variety of planning issues which need to be addressed.	
19	In common with all minerals, silica sand can be extracted only where the mineral occurs. But owing to the small number of deposits containing sand suitable for use specifically as silica sand, there is only a limited number of locations where extraction is economically feasible. To be considered potentially suitable for extraction, deposits must be capable of being worked economically and be available in sufficient quantity to justify the capital investment required. Where plant is required to process and treat silica sands to the necessary specification, it may be complex and costly, and the physical size of the plant may mean that screening is both difficult and expensive. While the level of investment will depend on the nature of the deposit and market to be supplied, the cost of establishing production on a greenfield site can range from £5m to £25m and up to £50m where a site produces value added products. In practice this has led to the establishment of a limited number of extraction units, most of which have been in existence for many years and which often will have a long term future. It should also be noted that replacing old or developing new process lines at existing sites also involves major investment. Furthermore the investment proposals of the raw material end-user industries are greatly influenced by the essential need for long term availability of indigenous materials.	
20	Plant required to process silica sand sometimes needs to operate for 24 hours a day and delivery of sands may also need to take place round the clock. Dried foundry sand must be delivered within a certain temperature range or its setting time in the foundry plant may be affected. Glass manufacturing factories usually operate round the clock. Consequently, transport of sands may be necessary 24 hours per day.	
21	Some types of sand, notably colourless glass sand, may require chemical treatment, while sands for foundry purposes require drying and some undergo a special resin coating process. Therefore, heavy capital investment is a factor for consideration at the start of a new operation and from time to time during the life of the working, when replacement or uprating of plant is proposed. While the general distribution of silica sand resources is relatively well known, detailed information on their suitability for particular end-uses or detailed information on their physical and chemical characteristics and on the nature and extent of processing which would be required to make them suitable for specific uses is not generally available whilst they are in the ground. The future supply of silica sand is likely to depend on the increasing use of processing techniques to upgrade sands to the required specifications. Plant required to upgrade sands may be costly. These points should be addressed in any consideration of the length of any permission which may be granted.	
22	The high capital cost of investment in the silica sand industry means that, in the short term at least, investment in new capacity may take the form of the uprating of existing plant or the creation of additional capacity at such plant. However, in recent years, increases in capacity, particularly for the supply of glass sand, have also been on greenfield sites, where companies have identified deposits which can be competitively worked.	
23	The locations of active silica sand quarries in England according to the geological age of the extracted deposit, are shown in Map 1. Further detailed information on the geological and technical aspects of silica sand extraction and its utilisation are provided in Annex B.	
24	Silica sand-bearing deposits may be overlain or interbedded with inferior grade sands that are not capable of beneficiation for use in industrial applications and hence are only suitable for construction uses. The use of such sands for construction aggregate would maximise recovery and thus ensure the efficient use of the total resource, in line with the principles of sustainable development. The amount of construction sand as a proportion of total production from a site varies greatly and will depend on several factors including the geology of the deposit. In applying this Guidance Note, planning authorities will need to distinguish between those operations which essentially produce construction sand but, in addition, produce small amounts of silica sand, and those operations which are essentially for silica sand, but which, mainly as a consequence of the geology, produce a proportion of material which is only suitable as a construction aggregate and would be used as such in order to avoid wastage. MPAs will therefore need to recognise the importance of the quality of silica sand whatever element of the overall output it constitutes and exercise some degree of flexibility in applying this Guidance Note.	
25	There may be potential environmental impacts arising from the consuming industries' demands for higher specification sands. These impacts may take the form of more sophisticated processing with increased energy consumption and problems of waste disposal, and/or more extensive quarrying of the deposit in order to produce a balanced plant feed from the often complex geology of the deposit. The latter may result in larger areas of quarrying rather than smaller confined workings.	
26	The impact of complex geology, changing end-user specification, relatively low volume of output, lack of alternatives and national importance of silica sand clearly distinguish the material from construction sands. These factors should be fully reflected in the future planning of silica sand resources.	
27	D National Policy Framework General considerations Minerals Planning Guidance Note 1 (MPG1) gives guidance on general considerations and the development plan system applying to all minerals development.	
29	Sustainable development The Government White Paper "This Common Inheritance" (Cm 1200) stresses the importance of combining economic growth with care for the environment in order to	

	attain sustainable development. The policy considerations for minerals planning in terms of sustainable development are described in paragraph 35 of MPG1.	
31	Use of materials … However, it would normally be appropriate to utilise as construction sand certain amounts of lower grade silica sand found within a silica sand deposit, which would otherwise be wasted. In some cases, such materials may be returned to the quarry during site restoration. To a large extent the scarcity and high value of the various grades ensure that the market operates to meet the right end-uses. At planning application stage, it will be up to the operator to indicate in broad terms the likely markets by proportion of the deposits.	
32	Recycling Recycling and re-use of silica sand, and products manufactured from silica sand, may afford considerable savings not only of the sand itself, but also of other raw materials and energy, as well as reducing the impact of extraction on the environment. Further environmental advantages of re-use/recycling are that the landfill requirement for wastes can be reduced and, with regard to the foundry industry, the need for transport can be reduced by the re-use of locally reclaimed sand… … There would be clear advantages in the extraction industry co-operating in efforts to encourage recycling since increased recycling would extend the life of mineral assets as well as maintaining the principles of sustainable development.	
34	There are some technical and economic obstacles to glass recycling. For example, mixed cullet (broken glass), which forms an increasing proportion of returned glass (owing to the inclusion of significant amounts of glass from elsewhere in Europe), cannot at present be used in the manufacture of clear glass. It should also be borne in mind that the increasing use of bottle bank cullet as a proportion of the furnace melt in glass manufacture may mean that the processed sand portion added to the cullet needs to be of a higher specification to offset the inconsistency of the cullet. This could create an increase in the demand for high grade silica sands. The costs of transportation from collection centres to glass manufacturing plants may also limit the growth of recycling.	
35	However, glass manufacturers already recycle large quantities of cullet. The Government's strategy for sustainable waste management "Making Waste Work" (Cm 3040 1995) records that over 500,000 tonnes of cullet glass from bottle banks and industrial sources went into new container production in 1993, representing a recycling rate of some 29%. By the end of 1994, some 17,000 bottle banks had been set up and as the use of bottle banks spreads and sorting is done increasingly by the public, recycling will increase further. The glass industry aims to achieve 58% recycling of container glass by the year 2000. The Government welcomes this and encourages the industry to make efforts to reach these targets.	
36	At present, levels of recycling of foundry sand vary from 50% to 80% depending on the nature of the operation. Recycling of foundry sand is constrained by technology and costs. In the manufacture of castings, much foundry sand is recovered for re-use, although there is degradation in sand quality after several castings. More sand is recovered from greensand operations than those using resin. In the latter, reclamation of sand is far less efficient and more expensive. Present recovery systems are also unable to produce the high quality sand required for all parts of the casting process. Techniques for recycling of foundry sand continue to develop and the amount recovered can be expected to increase.	
38	Government grants to the glass and foundry industries made under the Environmental Technology Innovation Scheme (ETIS) operated by the Department of Trade and Industry and DoE until late 1993 (see endnote 1) have been used to research new methods of recycling cullet to make glass, to seek other uses of cullet outside the glass industry and to research methods of recycling foundry sand... Endnotes The ETIS scheme was a programme of grant assistance operated for a limited period for pre-competitive industrial research in the environmental field. The main aims were to encourage technical innovation in order to improve environmental standards and help users and suppliers of environmental technology to become more competitive.	
39	E Development Plans General considerations Planning Policy Guidance Note 12 (PPG12) on Development Plans and Regional Planning Guidance provides advice on the preparation of development plans. Guidance on the operation of the development plan system in relation to minerals is given in MPG1.	
40	Silica sand provision in development plans … Areas of search offer a prudent approach to balancing the needs of the industry and local concerns about possible blight in respect of at least a proportion of the provision to be made. Further advice is given in MPG1. Early discussion with the minerals industry in the preparation of the plan is strongly encouraged.	
42	A summary of projected future demand for silica sand by the glass, foundry and other industries is at Annex A. MPAs may find it helpful to use the information given to assist them in identifying the need for specific sites, preferred areas or areas of search which may contribute to meeting these needs. In order to assist in the delineation of these areas in development plans, the silica sand industry should co-operate with MPAs wherever possible by providing information about the location of mineral resources in their areas. Discussions with individual operators about their longer term intentions may also be helpful in establishing the provisions which should be made in the plan for silica sand.	
43	Landbanks A landbank is a stock of planning permissions for the winning and working of minerals. Policies providing for the maintenance of landbanks are an important feature of minerals planning. Landbanks are necessary to enable the minerals supply industries to respond speedily to fluctuations in demand. The period of the landbank reflects the	

	lead times that may be involved in obtaining planning permission and bringing a site into full production. Landbanks enable the MPAs and the minerals industry to take a long term view of the needs of the consumer industries and of the planning and environmental implications of meeting those needs.	
44	The system used to ensure a continuing flow of aggregate materials to industry cannot readily be applied to silica sand because of the special features of the silica sand industry (paras 18-26 above) and the wide range of grades of material required to meet a range of specialist end-uses.	
46	Because of the relatively small number of quarries producing silica sand, and the range of types of silica sand required for different end-uses, reserves to meet the needs of the different consuming industries are bound to fluctuate widely at the local level, depending on the timing and size of individual planning applications.	
49	The Department's survey of production and reserves found that total permitted reserves at silica sand sites in Great Britain at 1 January 1990 were sufficient for approximately 33 years, at recent extraction levels. However, approximately 27% of the total reserves tonnage is sand which operators consider to be suitable only for construction purposes. Taking this into account, the reserves for silica sand for industrial purposes would reduce to approximately 25 years. In 1990, permitted reserves suitable for use in glass manufacture were sufficient for approximately 23 years at recent extraction rates, and for foundry purposes (excluding naturally-bonded sands), for approximately 48 years. These figures need to be taken as very broad approximations. They conceal a range of reserves for the range of different types of sand required, and also conceal very widely ranging landbanks at individual sites and for different geographical areas.	
50	Many small output units (those producing less than 50,000 tonnes per year) have large landbanks in excess of 30 years, while most large sites (those producing more than 100,000 tonnes per year) have landbanks below this level and, in some cases, below 10 years.	
51	Caution and flexibility will be needed in using these figures. It will be important to have regard to special factors, for example, some industrial consumers may necessarily be exclusively dependent on a single source of supply.	
52	The landbank requirement should be calculated by multiplying the average of the last 3 years' production for which figures are available by the appropriate number of years or by reference to levels of provision set out in the development plan. The calculations should have regard to the quality of sand and the use to which the material is to be put.	
55	Extensions It may be generally preferable, as a means of minimising environmental disturbance, and bearing in mind the scale of investment required to open new silica sand works, to adopt a policy of allowing extensions to existing mineral workings in order to extract all available reserves at an existing site, rather than allowing mineral workings at new greenfield sites. However, this will not always be the case as some existing mineral workings may be unsuitably located and it may do less environmental harm to open a new mineral working than to grant a permission for an extension. A general preference for extensions to existing workings should not be construed as a policy for protecting existing suppliers and a constraint on competition. Each case will need to be considered on its own merits.	Probably resources is meant here.
56	National Parks, the Broads, the New Forest and Areas of Outstanding Natural Beauty (AONBs) The Government's planning policies for all forms of development in National Parks, the Broads and AONBs are set out in Planning Policy Guidance Note 7: The Countryside and the Rural Economy (PPG7). Further guidance for mineral development in these areas, including New Forests, is given in paragraphs 70 and 71 of MPG6: Guidance for Aggregates Provision in England.	
57	Green belt The Government's planning policies for development in green belts is set out in Planning Policy Guidance Note 2: Green Belts (PPG2).	
58	Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), Special Protection Areas, Special Areas of Conservation and Ramsar Sites: The Government's policy for development within these areas is set out in Planning Policy Guidance Note 9: Nature Conservation (PPG9).	
59	Other environmentally important areas: Paragraph 49 of MPG1 describes how planning authorities should deal with proposals for development in these areas.	
60	Archaeology, listed buildings and the historic environment: The Government's policy for development in these areas is set out in Planning Policy Guidance Note 16: Archaeology and Planning (PPG16) and Planning Policy Guidance Note 15: Planning and the Historic Environment (PPG15).	
61	Agricultural land: The Government's policy on the use of agricultural land is set out in Planning Policy Guidance Note 7: The Countryside and the Rural Economy (PPG7).	
62	Because of limited availability of resources of suitable quality, it may be necessary to consider working such resources even where they occur beneath areas of the best and most versatile agricultural land. But this should only be considered where alternative resources are not available either beneath lower quality land or below best and most versatile land capable of being restored to its original pre-working agricultural potential.	
64	F Considering Individual Planning Applications Assessment of need and supply The Government's policy on ensuring supplies of minerals is set out in paragraph 40 of MPG1. As far as silica sand is concerned, authorities should have regard to the balance of real need and real supply. But landbank calculations and estimates of real supply can seldom be exact and decisions on individual applications should not be determined on an over-precise calculation of whether supply matches the landbank requirement.	Advice more than policy.
65	In considering applications, consideration should be given to the position in respect of permitted reserves and whether the particular nature and qualities of the silica sand,	Advice more than policy.

	such as suitability for particular end-use not met by other available sources in the area or region, in itself justifies granting permission.	
66	It is important to draw a distinction between the reasons for a landbank as discussed in paragraphs 43-52 above and the need for the size of a particular permission to reflect the levels of capital investment required at specific sites. Some quarrying operations involve simple methods of working and processing which do not involve major capital expenditure. Others necessitate a lengthy period of planning and development work, plus a high investment in plant and equipment, which requires a long operating life to provide a return on investment. Proposals which involve extraction over a long period may be related to phased schemes for reclamation and restoration.	Advice more than policy.
67	It should be noted that the general commitment to maintain a landbank does not remove the discretion of a mineral planning authority, or the Secretary of State, to refuse planning permission should there be serious, overriding objections.	
68	Environmental effects Mineral development can have a considerable impact upon the environment. For example, visual intrusion of a site, any permanent changes to the landscape, noise, vibration and dust, both from the workings and any associated heavy lorry traffic, can give rise to objections by local communities.	
69	… Ancillary operations, such as crushing, grading and screening, and sand drying, may require authorization under Part 1 of the Environmental Protection Act 1990. More guidance is contained in paragraphs 59 and 60 of MPG1.	
70	Operators' proposals In considering proposals for minerals development, authorities will wish to satisfy themselves that the operator's proposals for managing the site, and for restoration and aftercare, will achieve high standards of operating and reclamation practice in accordance with modern planning requirements. Operators may therefore wish to call attention to, and authorities will wish to consider, any evidence as to how their proposed methods of site management, restoration and aftercare are likely to work out in practice. This might be done by providing evidence about the way a similar site is currently being managed, or how restoration and aftercare have been achieved on a similar site. MPAs should thus have regard to the practicality of the proposal before them.	Basic mineral planning practice, not policy.
71	The Code of Environmental Practice prepared by the Silica and Moulding Sands Association (SAMSA) provides useful information about the environmental standards the member companies have agreed to follow. The Government encourages the use of such codes and welcomes the steps taken by the trade association in preparing this. It would be helpful if results of environmental audits by operators were made available to MPAs and other interested parties.	
72	Environmental Assessment Paragraphs 59 and 60 of MPG1 and paragraphs 38 and 39 of PPG9 set out the Government's guidance on consideration of environmental impacts and sources of advice for MPAs and operators. DoE Circular 15/88 explains the provisions of the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988 and gives advice on their implementation. Further advice is given in DoE's "Environmental Assessment: A Guide to the Procedures" (HMSO 1989).	
73	Transport The relative scarcity of silica sands and their distance from major centres of consumption means that transport is a major item in the delivered cost of the mineral.	
74	As indicated in paragraph 20, dried foundry sand must be delivered within a certain temperature range or its setting time in the foundry plant may be affected, and many glass manufacturing plants operate round the clock necessitating 24 hours transport operations. These factors have implications for the preferred transport mode. Generally, road haulage is often considered more flexible and better able to guarantee the timed delivery service demanded by the majority of the silica sand industry's customers. Rail may, however, in some cases offer an environmentally advantageous alternative, particularly for delivering large quantities of sand to limited numbers of customers, eg glass manufacturers. There may be more potential for rail transport over long distances. Planning authorities should, individually or collectively, have regard to these factors when drawing up policies in their development plans on such matters as transport modes, routing and the safeguarding of freight depots.	
75	Discussions should take place with MPAs at an early stage on how traffic generated by the proposal will be managed to minimise environmental disturbance. Advice on access and road safety considerations is given in paragraphs 30 to 33 and 76 to 79 of MPG2. The report "The Environmental Effects of Surface Mineral Workings" (HMSO 1991) also provides advice on traffic. General advice on transport and planning is given in PPG13. DoE has commissioned further research to assess the environmental effects resulting from on-site and off-site traffic.	
76	Grants remain available to assist with the capital cost of constructing rail freight facilities. Grants under Section 8 of the Railways Act 1974 have, in the past, been used effectively to reduce the movement of aggregates by road. The grant scheme is administered by the Department of Transport (DoT). Since 1 April 1996 these grants have been enhanced under the powers in section 139 of the Railways Act 1993. Similarly, in the former Transport Act, section 36 grants (for movement of freight by inland waterway) have been replaced by grants under section 140 of the 1993 Act. The main change is the inclusion of wider and social benefits of lorry removal through the addition of motorways and dual carriageway trunk roads in environmental assessments. Additional assistance has also been made available from 1 April 1994 with the introduction of a new Track Access Grant to assist rail freight operators in meeting charges levied by Railtrack for access to the track. This may help mineral producers contracting for rail haulage where the cost of rail would otherwise be unfavourable when compared with road transport. The grant will be administered centrally by DoT.	
77	… It should be noted that the imposition of an obligation to use rail as part of the determination of a planning application will however mean that freight grant cannot be paid as road must be a practical alternative.	
78	Water Interests MPAs and the industry should take into account the body of legislation in relation to water supply, pollution control and land drainage. These are discussed further in paragraphs 35, and 109 to 116 of MPG2, in MPG7 and in DoE Circular 25/85. The Environment Agency should be consulted about all new development proposals. Where	

	working would take place below the natural water table applications will need to include proposals for a suitable aftercare. The Environment Agency's groundwater protection policy outlines the after-use constraints and opportunities which may apply in such circumstances, subject to site-specific technical appraisal.	
79	Working practices, restoration, aftercare and after-use Applications for extraction of minerals such as silica sand need to include information which demonstrates that the site will be restored satisfactorily. Advice on restoration and aftercare, including a general review of the essential technical requirements which need to be considered when planning conditions are drawn up, is given in Minerals Planning Guidance Note 7: The Reclamation of Mineral Workings (MPG7).	
80	… One of the distinguishing features of the industry is the duration of its extraction operations…	
81	It is likely that longer term schemes prepared before extraction commences will require monitoring, updating and amendment during the lifetime of such working. Planning conditions may allow for this by requiring a general treatment scheme to be prepared and agreed before extraction starts, to be followed up by submission of detailed schemes for particular phases for landscaping, for reclamation and aftercare, and by setting a time limit for submission of the final reclamation plan which is commensurate with the duration of the mineral permission.	
82	However, all planning applications should contain sufficient detail of working and restoration methods and programmes to allow an assessment to be reached on the viability of the application and of proposals to achieve the intended after-uses. Operators should therefore draw up Quarry Plans to accompany planning applications. Such plans are non-statutory and are not substitutes for environmental statements/assessments; but drawn up in consultation with the MPA they would provide the MPA's requirement for details of the screening and phasing of working, restoration and aftercare, and the longer term after-use of the site.	Good site management statements?
83	Where possible working and reclamation should be in a progressive manner. However, it is recognised that in some cases different grades of sand are worked from separate parts or levels of a single quarry. Varying rates of extraction, depending on the demand for particular grades of sand or volumes of each deposit, may hinder or even prevent progressive restoration and require the preparation of more complex working schemes than are usual for construction sand quarries. There may also be the need for facilities for mixing/blending the raw mineral at the quarry face and the need for settling lagoons. However, the aim should be to minimise the area open and disturbed at any one time and, where reasonably practicable, to secure progressive restoration of the site. Care should be taken to conserve all soil and soil-making materials suitable for use in restoration.	
84	Silica sand deposits are often thick and may extend well below the natural water table, which may make restoration to agriculture impractical. There can be positive benefits of restoration to wet after-uses and regard should be had to the advice on such uses set out in MPG7. Whether a wet after-use is acceptable will need to be considered alongside the policy on agricultural land set out at paragraphs 61-62 and in consultation with the Environment Agency	
86	Further advice on Quarry Plans in relation to working, restoration, aftercare and after-use is contained in Annex C.	
87	G Implementation This Guidance Note will provide the basic framework for the planning for provision of silica sand. It will be taken into account by the Secretary of State when considering development plans and individual planning applications which come before him for decision.	
89	The silica sand industry has an important role to play in co-operating with, and contributing to, the development plan process. For example, the successful application of landbank policies depends upon the ready availability of information on reserves and production…	
90	H Monitoring and Review This Guidance Note will provide the basic framework for the planning for provision of silica sand. It will be taken into account by the Secretary of State when considering development plans and individual planning applications which come before him for decision.	
91	A survey of silica sand operations carried out in 1979, and published in 1982 informed the 1985 guidelines (Circular 24/85). The DoE's 1991 survey, which has informed the production of this Guidance Note, provided information which was not available elsewhere.	
92	The Secretary of State regards the continuing co-operation of the industry and mineral planning authorities as being valuable and helpful in the formulation of policies and their monitoring. Continuation of this co-operation in the future will facilitate regular updating of this Guidance Note.	
93	The Government looks to the silica sand extracting and consuming industries to consider how they can increase re-use and recycling of silica sand and products made from silica sand, and how such efforts can be monitored.	
Annex A	**Annex A: Projection of Demand for Silica Sand** Background A1 In practical terms, the need for silica sand can be established from the demands made by consuming industries. To provide guidance on the long term trend in demand for silica sand the Department employed independent consultants, ECOTEC Research and Consulting Ltd, to prepare a methodology to project demand for silica sand over the 20 year period to 2011. Based upon this methodology the consultants produced a range of projections of demand for the period 1991-2011. The consultants were advised by a sub-group of the Silica Sand Advisory Group, comprising representatives of the Silica sand producers, the main consuming industries, MPAs, the British Geological Society and central Government. A2 The projections which have been produced by the consultants essentially represent trends in possible demand over the period of the guidance. They cannot be used to denote the level of demand over the short term or in any one year or a small group of years. Nor do they represent targets for production. It must also be recognised that as	

with all long term projections there will be greater uncertainty towards the end of the forecast period than at the beginning. Mineral planning authorities may wish to have regard to these projections when considering planning applications and in preparing development plans.

Methodology

A3 ECOTEC identified that the major determinants of the demand for silica sand were the levels of construction activity and vehicle production, reflecting consumption of flat glass (vehicles and construction), ceramics (construction), and castings (vehicles). Accordingly, long term forecasts of construction activity were commissioned from Cambridge Econometrics. These forecasts were then incorporated into the ECOTEC forecasting model which produced projections for future demand for silica sand.

Forecasts

A4 Cambridge Econometrics (CE) regularly produce long term forecasts for the British economy based on the Cambridge Multi-sectoral Dynamic Model (MDM). This is currently disaggregated into 43 sectors of British industry of which construction is one. The forecasts are normally published for 10 years ahead (presently to the year 2001), but the model has been extended to the year 2011, and forecasts to this horizon are produced for some subscribers.

A5 The forecasts of construction activity which CE produce are based upon a detailed examination of long term trends in economic activity combined with analyses of specific major factors influencing construction activity. This includes consideration of the national house building and road building programmes. Their forecasts are the result of a major "bottom-up" exercise combined with strategic judgements about the overall growth rate of the economy. This forecast of construction activity can be measured as construction output or construction investment. For the purposes of the present exercise it was decided to use construction investment (referred to as investment in buildings and works).

A6 CE were asked to produce 3 scenarios of construction activity. The base forecast represents their most likely estimate of growth. The two other CE scenarios are based on differences in policy assumptions which lead to alternative long term economic growth rates; these are the high and low forecasts.

A7 The CE construction activity forecasts below were produced in February 1992. The average annual growth rates for the base forecast for investment in buildings and works are:

	1980-85	1985-90	1990-95	1995-2000	2000-05	2005-11
Investment in building and works	- 0.4%	7.0%	-1.1%	3.7%	2.7%	2.8%

A8 The CE high growth scenario is broadly based on assumptions of higher world growth, particularly as a response to European integration; this leads to higher productivity in GB. This indicates that construction investment growth would be approximately 3.3 % above the base by 2011. The low scenario is derived from a deterioration in GB economic performance with a longer recovery period. This indicates construction investment at -5.2% below the base.

Analysis

A9 ECOTEC's projection of long term demand for silica sand adopts a "top-down" approach, based largely on the projected demand for end-products (construction and vehicles), which is taken to determine the demand for intermediate products (castings, flat glass, ceramics), which in turn is taken to determine the demand for silica sand. ECOTEC found that for container glass, inspection of possible explanatory variables as a basis for forecasting trends in production failed to identify any valid statistical relationship. Consequently, the projected trend is an extrapolation of historical trends based on simple assumptions regarding future growth/decline in this sector.

A10 Qualitative judgements and statistical analysis including a regression model form the basis of the demand projections over the period 1991-2011 for the major end-products. These projections, with further qualitative judgements, in turn form the basis of demand projections for the most important intermediate products. Finally, these projected trends of demand for intermediate products are aggregated to project the demand for silica sand through the year 2011.

A11 In determining the trends in demand for intermediate products, account is taken of intensity of use of these products in final production. For example, intensity of use of silica sand in container glassmaking is expected to fall dramatically over the projection period because of the impact of increased recycling, while that in flat glass is expected to remain virtually unchanged.

A12 The end-products expected to have the most significant impact on the demand for silica sand through 2011 are cars and construction activity, as consumers of castings (cars), flat glass (cars and construction), ceramics (construction) and containers. Clearly, demand for these end-products is partially driven by prevailing economic conditions and other exogenous factors, and leads to uncertainty in the projected demand for silica sand. These uncertainties are reflected in low and high projections for total vehicle production and construction activity.

A13 ECOTEC produced a projected trend for car and commercial vehicle production varying between an annual average growth rate (1991-2011)(based on 1990 levels) of 3.5%(high forecast) and 2.6%(low forecast). This trend is based on data on new car production and total car stock figures for the period 1974-1990, UK population

statistics, projections of car ownership rates for the period 1991-2011, and the formulation of certain judgements about demand and economic conditions over the projection period due to a multiplicity of factors. ECOTEC concluded that total vehicle production would be closely related to UK new car production.
A14 The vehicle projections were used, together with those derived for construction investment by Cambridge Econometrics, to project demand for intermediate products, ie for iron castings, non-ferrous castings, flat glass, and "other" (including ceramics). Sensitivity analysis was used to apportion the construction and vehicle projections to the intermediate products, to explain the sensitivity of the projection for intermediate products to the projections of end products. Demand for container glass was projected on the basis of assumptions about the demand for its products.

The projections
A15 The methodology outlined above was used to produce three scenarios with a range of projections of the long term trend in demand for silica sand. Separate forecasts of silica sand demand were generated for each intermediate product, then aggregated to produce low, medium and high projections for total silica sand. The results of the exercise are shown at Figures A1 and A2.

Figure A1: Great Britain: Total Silica Sand Consumption 1979 – 2011

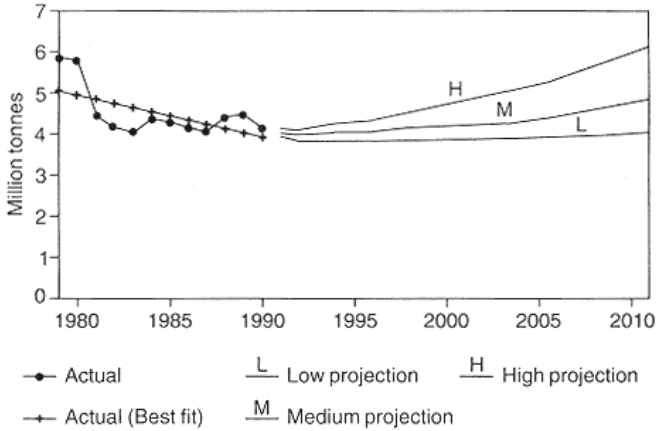
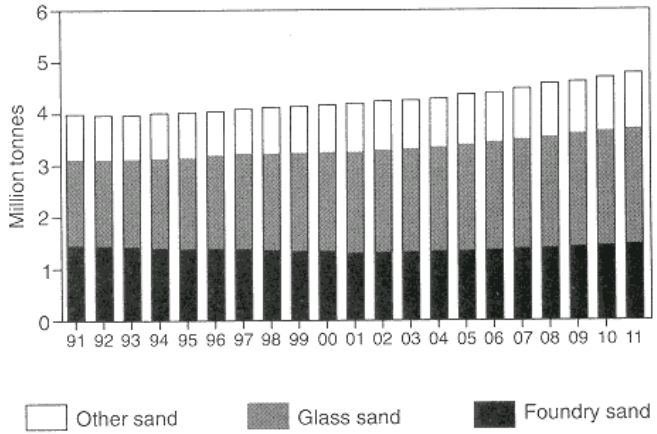


Figure A2: Silica Sand Demand Projection by Category (Medium Projection)



	Source: ECOTEC Total demand: The total demand for silica sand is based on the sum of the individual components of demand, and is principally determined by the relative growth in consumption by glass manufacturers and the relative decline in consumption by the foundry industry. The projected annual average demand for silica sand (1991-2011) is as follows: 4.8 million tonnes (high projection) 4.2 million tonnes (medium projection) 3.8 million tonnes (low projection) The projected trend in total demand for silica sand varies between an annual average growth rate, on 1990 levels, of between + 1.9% (high projection) and - 0.06% (low projection). Foundries: The projected demand by foundries is a function of UK castings production, and relies on an assumption that intensity of use of silica sand per unit volume of castings will remain constant. Glass: Demand for silica sand for flat glass is assumed to be directly proportional to UK flat glass production. It is assumed that demand for silica sand for container glass will be influenced by recycling, and the increasing substitution of recycled glass cullet. By 2011 it is projected that only 30% silica sand will be used in container glass. (Currently between 45 and 73% sand is used depending on whether the containers are coloured or colourless). Ceramics and other applications: Demand for sand for ceramics manufacture is also assumed to be directly proportional to UK ceramics manufacture. In the projections, ceramics are included with "other" end uses, because their demand is projected from similar assumptions. <u>Monitoring and review</u> A16 It is proposed that the projections should be monitored and reviewed periodically. This will ensure that changes in assumptions can be considered. A17 Copies of the consultants' reports used in preparing the long term demand projections for silica sand can be seen at, and obtained from: DoE, Room C15/20, 2 Marsham Street, London, SW1P 3EB.	
Annex B	**Annex B Geological and Other Technical Factors in the Extraction and Processing of Silica Sand** B1 The principal commercial sources of silica sand in Britain are unconsolidated sands and weakly cemented sandstones, ranging from Carboniferous to Holocene (Recent) age. In practice, most production is concentrated on a few high quality deposits, notably those of Pleistocene age in Cheshire; of Cretaceous age in Norfolk, Surrey, Kent, Bedfordshire and Highland region; and of Carboniferous age in Staffordshire and Fife. B2 The extraction of silica sand is almost exclusively by opencast quarrying, an exception to this being the Lochaline mine in North-west Scotland where a bed of high purity Upper Cretaceous sandstone, underlying Tertiary basalts, is mined by pillar and stall methods. Geological factors which need to be considered in planning for extraction include variations in the chemical purity and grainsize distribution of the deposit; its structure; overburden to mineral ratio, where appropriate; and the position relative to the water table. B3 Silica sands are commercially valued for their chemical properties, that is, chemical purity, and physical properties - principally grain-size distribution but also grain shape. They exhibit a wide range of physico-chemical properties and individual grades may vary markedly from one another. Even quite small differences in chemistry and grain-size distribution may mean that they are not interchangeable in end-use. For most industrial applications, silica sands have to conform to tight specifications. B4 Natural sands rarely contain more than 95% quartz, but it is possible to beneficiate deposits containing somewhat lower concentrations of quartz for use in glass manufacture. It is not practicable to define a silica sand by a minimum quartz content, as beneficiation may improve the usability of many impure sands. B5 Depending on end-use, the processing of silica sands is of varying complexity. For most applications, processing is aimed at improving the physical and chemical properties of the sand, largely by adjusting the grain-size distribution, by removing undersize and oversize material, and removing contaminating impurities in the sand or from the surfaces of the individual sand grains. Washing and size classification are standard methods, but sands used in the manufacture of colourless glass are further processed by acid leaching, froth flotation or gravity separation to remove impurities. Most foundry sands are dried before delivery. Drying accounts for around one-third of the cost of silica sand, due to the energy-intensive nature of the process. Transport accounts for a further one-third of unit costs. Total delivered cost of a tonne of silica sand was in the region of £12-£16 in 1992. B6 The extremely well-sorted Pleistocene Congleton and Chelford sands of Cheshire provide valuable sources of foundry sand. The deposits are easily worked and have the advantage of proximity to centres of demand, chiefly in the West Midlands. The Chelford Sand is also worked on a large scale for the manufacture of flat glass. B7 The Leziate Beds near King's Lynn in Norfolk and the Lower Greensand of Surrey and Kent are of Lower Cretaceous age, and are important sources of both glass and	

	foundry sand. The Lower Greensand of Bedfordshire is also an important source of silica sand for a wide range of industrial applications. B8 Sandstones of Upper Carboniferous age have become important sources of silica sand for the manufacture of colourless glass, among other industrial uses. In Staffordshire, the Millstone Grit is highly discoloured in places but impurities occur in the fine fraction and on quartz grain surfaces and can be removed by processing. Deposits of a similar age occur in Fife, Lothian and North Yorkshire. B9 The highest quality silica sand deposit in the UK occurs at Lochaline in North-west Scotland, where the Upper Cretaceous White Sandstone is mined for uses including colourless glass manufacture. B10 There are proven and workable reserves of silica sand of Recent age in Humberside which provide material for coloured glass and foundry use. Sands of comparable age are worked from the intertidal zone of the Ribble estuary for a range of industrial applications. B11 Smaller amounts of silica sand are produced in a number of other counties. These include the production of naturally-bonded moulding sand from Triassic sandstones in Hereford and Worcester and foundry sand from Jurassic sandstones in North Yorkshire. The Kesgrave Sands and Gravels of Pleistocene age in Essex also yield filtration sands for the water treatment and abstraction industries. B12 Further information on silica sand resources is given in Mineral Dossier No 18 "Silica" (HMSO, 1977)	
Annex C	**Annex C Quarry Plans** C1 Quarry working and reclamation, by its very nature, must be site specific. There can be no blueprint applicable to all situations. Nevertheless there are certain principles of good management which can assist in ensuring that a proper balance is achieved between maintaining the environment of local communities close to a quarry and desirable landscape and restoration objectives on the one hand and, on the other, the planning of a quarrying operation which is both practicable and economic, and ensures optimum use of the resource. It follows that the ways of securing best practice in the working and restoration of a specific quarry should be considered as an integral part of the preparation of plans for landscaping and quarry development from the earliest stages. This calls for close cooperation between the quarry operator, landowner and the mineral planning authority from the outset, and where appropriate, liaison and consultation with the local community and others with an interest in the land. C2 The following principles may usefully be applied to the preparation and implementation of detailed working and reclamation plans. Reference should also be made to relevant published Government and other guidance, particularly Minerals Planning Guidance Notes (MPGs) and Planning Policy Guidance Notes (PPGs). For sites involving filling with controlled wastes, additional guidance is contained in DOE/Environment Agency Waste Management Papers. <u>The preparation of a quarry plan</u> C3 Consultation with the mineral planning authority on operational practice, landscaping and reclamation should take place from an early stage so that appropriate consideration can be given to its views while the Quarry Plan is in preparation. Informal pre-application discussions can help to resolve potential difficulties and clarify the requirements for documentation to accompany the planning application. Pre-application discussions can also clarify the requirements of other possible statutory consultees, such as MAFF and Forestry Commission, as well as the Environment Agency. C4 Whilst details of quarry operations, final site reclamation and after-use must be considered at the time of planning application, the timescale of a major quarry means that the planning conditions and the related Quarry Plan will probably need updating and amendment. C5 Sometimes potential future quarrying areas can be screened by planting, years before working commences. Operators should draw up a quarry plan at application stage which includes screening and other pre-working activities. C6 The Quarry Plan should cover the time scale of the development, incorporating progressive restoration wherever possible. For future and recently-permitted sites, it will normally be linked to relevant planning conditions dealing with stripping and storage of soils, landscaping and restoration and aftercare. The site should be monitored to ensure compliance with such conditions, and the Plan should be regularly reviewed to incorporate site experience gained. C7 The Plan should aim to minimise the need to rehandle, or to import into the quarry, topsoils, subsoils and overburden or quarry waste. Soil resources should be carefully preserved and not be exported from the site. Soils should be stripped, handled and stored so as to minimise any damage to their structure (see, for guidance, Table 1 of MPG7, soil characteristics and the effects of disturbance), and to avoid mixing topsoil with subsoil and unnecessary mixing of dissimilar soil types. C8 The phases of the Plan, with progressive restoration where possible (including temporary landscaping and management proposals for, for instance, soil or overburden stockpiles) should generally seek to minimise the area of exposed workings. C9 The quarry plan should require that details are kept of the depth extent and profile of the quarry. Where it is likely or conceivable that the after-use could include built development, infilling materials should be inert and non-degradeable in order to prevent the risk of methane generation, and selected and placed to ensure the limited and quick settlement of the fill. C10 Where landfilling with controlled wastes is involved, the Plan will need to take account of the requirements of both the planning permission and the site licence. Care will be needed to ensure that there is no conflict or incompatibility between the two. In particular, careful attention needs to be given to ensuring that pollution control systems are designed to be compatible with the proposed after-use. Any proposal to use controlled wastes in infilling will also require consultation with the waste disposal authority at an early stage. They will expect to see a working plan for the disposal operations and early preparation of this eases the agreement of a suitable disposal site licence.	

	Implementation of the quarry plan C11 The aim should be to integrate working restoration and landscaping work into routine quarry management operations, thereby avoiding large variations in operational costs and using the general stock of quarry equipment and materials where possible. The workforce should be trained to achieve this pattern of working and to regard restoration requirements as of equal importance with meeting output targets. C12 The Plan may provide for varying of slopes and contours during extraction to soften geometric quarry shapes and to assist in restoration. It may be possible in some locations to replicate naturally occurring landforms. C13 Where appropriate to the agreed after-use, planting of vegetation should reflect woodland, grassland and flowering plants occurring naturally in the area, and provide wildlife habitats. It may also be appropriate to consider whether any features of geological importance which have been revealed during the quarrying operations can and should be preserved and included in the restoration scheme. C14 Restoration design and methods should take into account possible effects on groundwater and surface water drainage, levels and quality. C15 Vegetation cover in all restored areas should have regular management and maintenance as a formal aftercare requirement of the planning permission. C16 Quarry operators will normally expect to maintain control of, and responsibility for, their sites until completion of restoration and aftercare; and for any post-closure responsibilities arising from landfills. However in the longer term it may be intended that the land should be leased or sold. Discussions may therefore be needed with agricultural, forestry or nature conservation bodies, and the Environment Agency, depending on the actual after-use.	
Annex D	**Annex D** Bibliography Primary legislation Railways Act 1974 Railways Act 1993 Ancient Monuments and Archaeological Areas Act 1979 Environmental Protection Act 1990 Town and Country Planning Act 1990 Planning and Compensation Act 1991 Wildlife and Countryside Act 1981 Statutory Instruments Town and Country Planning (Assessment of Environmental Effects) Regulations 1988 (as amended) EC Conventions and EC Directives Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Cm 6465) Directive 79/409/EEC: European Commission Directive on the Conservation of Wild Birds Directive 92/43/EEC: European Commission Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora DOE Circulars Circular 24/85 (WO 58/85): Guidelines for the Provision of Silica Sand in England and Wales Circular 25/85 (WO 60/85): Mineral Workings Legal Aspects Relating to Restoration of Sites with High Water Tables Circular 15/88 (WO 23/88): Environmental Assessment Minerals Planning Guidance Notes MPG 1 - General Considerations and the Development Plan System MPG 2 - Applications, Permissions and Conditions MPG 6 - Guidelines for Aggregates Provision in England MPG 7 - The Reclamation of Mineral Workings Planning Policy Guidance Notes PPG 1 - General Policy and Principles	

	PPG 2 - Green Belts PPG 7 - The Countryside and the Rural Economy PPG 9 - Nature Conservation PPG 12 - Development Plans and Regional Planning Guidance PPG 13 - Transport PPG 15 - Planning and the Historic Environment PPG 16 - Archaeology and Planning Scottish Office National Planning Policy Guideline NPPG 4 - Land for Mineral Working Other Publications Business Monitor "Minerals", issues 1970-93. HMSO Business Monitor "Minerals Extraction in Great Britain", 1994 issue. HMSO Business Monitor MA20 "The Overseas Trade Statistics of the UK" HMSO 1988 - 1992 Business Monitor MM20 "Overseas Trade of the UK (extra-EC)" HMSO 1993 - 1994 Business Monitor MQ20 "Overseas Trade of the UK (intra-EC)" HMSO 1993 - 1994 CBI Minerals Industry Environmental Charter Environmental Assessment: A Guide to the Procedures. HMSO 1989. Environmental Effects of Surface Mineral Workings. HMSO 1991. ISBN 0 11 752637 1 Forecasting the Demand for Silica Sand. Report for Department of the Environment. ECOTEC Research and Consulting Ltd. 1992. Mineral Applications. MAFF 1996 (PB2525). Mineral and Waste Planning Applications. MAFF 1996 (PB2526). Code of Environmental Practice. Silica and Moulding Sands Association (SAMSA). Silica: Mineral Dossier No 18. Mineral Resources Consultative Committee 1977. HMSO Silica Sand: Stage 1 (Fact Finding) Report (prepared by the Silica Sand Technical Working Group, established under the auspices of the Association of County Councils). 1982 Sustainable Development: the UK Strategy (Cm 2426) HMSO 1994 ISBN 0 10 124262 X This Common Inheritance (Cm 1200) HMSO 1990 ISBN 0 10 112002 8	

Appendix 3 Review of national minerals policy implementation in Regional Strategies and accompanying matrices

INTRODUCTION

This aspect of the research examined the take-up of Minerals Policy Statement (MPS) and Minerals Planning Guidance Note (MPG) policy at the regional level. A desk top review of the Regional Strategy for each of the nine[1] English regions was undertaken in order to understand and identify the extent to which Regional Planning Bodies (RPBs) had adopted MPS and MPG policy in the Regional Strategy preparation process. Following the Government's intention to abolish Regional Strategies, any review of national planning policy and the preparation of Local Development Frameworks (LDFs), will now need to consider whether policies previously included at the regional level should be re-incorporated at either national or local level.

CONTEXT

Part 1 of the Planning and Compulsory Purchase Act 2004 (The Act) strengthened the role of regional planning and introduced a new statutory framework for regional planning in England. Under this new framework, each Regional Planning Body (RPB) became responsible for the preparation of a Regional Strategy which forms part of the development plan for the region and replaces Regional Planning Guidance (RPG).

The primary objective of the Regional Strategy (RS) was to promote sustainable economic growth, tackle challenges posed by climate change and contribute to sustainable development. The RS also identified the strategic policies and objectives relating to development and use of land within the region. Regional Strategies provide a regional policy framework to inform the preparation of all Local Development Documents (LDDs), including minerals development frameworks which must be in general conformity with the Regional Strategy.

The policy framework for the preparation of Regional Strategies was provided in a new *Policy Statement on Regional Strategies*[2], which replaced Planning Policy Statement 11: *Regional Spatial Strategies*. The Policy Statement provided policy on the preparation and revision of such strategies and set out the main expectations on their form, content, implementation and monitoring.

Regional Strategy Objectives
Regional Strategy policies should be formulated in order to deliver sustainable economic growth, which means economic growth that can be sustained and is within environmental limits, but also enhances the environment and social welfare, and avoids greater extremes in future economic cycles. In designing policies in support of sustainable economic growth, responsible regional authorities should seek to: • Align public and private sector investment around the delivery of a common

[1] A total of eight RPBs had been established in England, plus the Mayor of London who is responsible for producing a planning strategy for London.

[2] Policy Statement on Regional Strategies, DCLG, February 2010

set of agreed objectives.

- Drive the development of low carbon and sustainable regional, sub-regional and local economies and support them in responding to changing economic conditions whilst also protecting and enhancing the environment and the well-being of communities.
- Set out regionally and, where appropriate, sub-regionally specific policies which focus on key priorities, and provide a clear framework for local decision makers and public and private investors.
- Secure a joined up approach to strategy-making and governance within each region, based on partnership working and stakeholder involvement.

Policy Statement on Regional Strategies paragraph 2.3

OVERVIEW OF METHODOLOGY

In order to evaluate the extent to which MPS and MPG policy had been incorporated into the Regional Strategy process, a qualitative assessment of the minerals policies contained in each Regional Strategy was carried out. The appraisal process broadly comprised the following key stages:

- Using the desk top review of all MPSs and MPGs which separated 'policy' from 'guidance', identify core policies for evaluation;
- Evaluation of Regional Strategy minerals policy against MPS / MPG policy to establish level of integration;
- Draw conclusions and assign each MPS / MPG policy an assessment score; and
- Present the findings derived from the qualitative analysis, highlighting policy strengths, areas that require improvement and gaps in policy.

The documents evaluated were:

- East of England Plan, The Revision to the Regional Spatial Strategy for the East of England, May 2008;
- East Midlands Regional Plan, March 2009;
- The London Plan, Consolidated with Alterations since 2004, February 2008;
- The North East of England Plan Regional Spatial Strategy to 2021, July 2008;
- North West of England Plan Regional Spatial Strategy to 2021, September 2008;
- The South East Plan, May 2009;
- The Draft Regional Spatial Strategy for the South West 2006-2026, June 2006;
- Regional Spatial Strategy for the West Midlands, Regional Spatial Strategy Incorporating Phase 1, January 2008; and
- The Yorkshire and Humber Plan Regional Spatial Strategy to 2026, May 2008.

The results of the assessment were recorded in a matrix (see below). Two axes formed the framework of the assessment matrix, with the horizontal axis containing the individual Regional Strategy and the vertical axis a list of MPS and MPG policies against which the Regional

Strategy minerals policies were evaluated. The level of integration of each MPS and MPG policy within the RS was scored using the following criteria:

	MPS / MPG policy fully integrated with Regional Strategy.
	MPS / MPG policy partially integrated with Regional Strategy- Policy referred to in supporting text but not translated to Regional Strategy policy.
	No MPS / MPG policy integration with Regional Strategy- No reference to policy within Regional Strategy policy or supporting text.

KEY FINDINGS

The qualitative research has provided an invaluable means of understanding the extent to which RPBs had integrated MPS / MPG policy into Regional Strategy preparation. Key findings are summarised below under the relevant MPS / MPG policy topics and in the order they appear in the national policy documents.

MPS1: PLANNING AND MINERALS 2006

Minerals Policy Statement 1: *Planning and Minerals* (MPS1), published in November 2006, sets out the overarching objectives and policies in relation to minerals. MPAs must address the national polices contained in MPS1 when carrying out their planning functions.

SAFEGUARDING

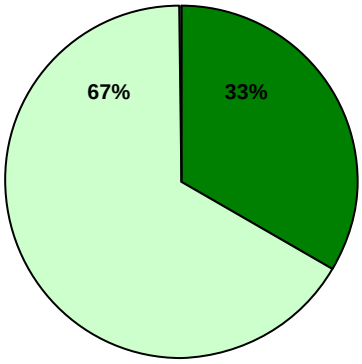


Figure A3.1 Safeguarding mineral resources

The research demonstrates the considerable variation in the approach to minerals safeguarding and the degree to which it has been considered and integrated into RS policy. While all nine RSs refer to safeguarding mineral resources within policy, there are a number of specific areas where it is considered that the safeguarding policy does not align with MPS1. Policy contained within six of the nine RSs do not clearly set out what safeguarding is intended to achieve or the minerals it applies to at the regional level. Only three RSs identify those minerals that are produced within the region and that are to be safeguarded.

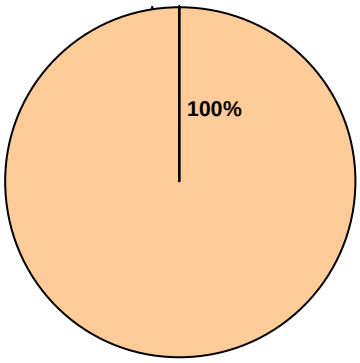


Figure A3.2 Prior extraction

The analysis clearly demonstrates the lack of consideration of prior extraction issues at the regional level. None of the nine regions include policy or supporting text to encourage the prior extraction of minerals that may otherwise be sterilised by permanent development.

Regional Strategies could usefully include a policy relating to the prior extraction of minerals, which sets an overarching policy framework for the circumstances in which extraction prior to the commencement of competing development will be granted.

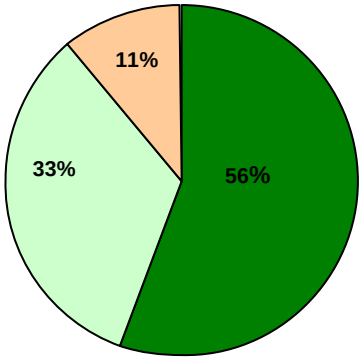


Figure A3.3 Safeguarding infrastructure necessary for transporting minerals

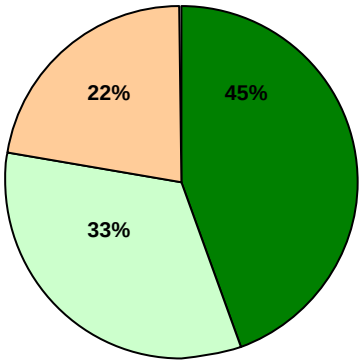


Figure A3.4 Safeguarding mineral handling, processing and distribution sites

Regional Strategy policy generally shows a good level of integration of policy relating to safeguarding sites for mineral handling, processing and distribution, although the identification and safeguarding of existing, planned and potential rail heads and wharf facilities, which provide the opportunity for using rail and water for the bulk transport of minerals, generally receives slightly less recognition. The bulk transportation of minerals by alternatives to road was a key objective of the former UK Government's sustainable development strategy.

SUPPLY

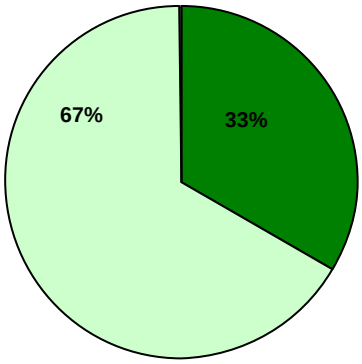


Figure A3.5 Identification of those minerals which are of national and regional significance

There is a low level of integration of policy relating to the identification of mineral resources that are considered to be 'significant' at the regional level. As each region is geologically unique, Regional Strategy policy should identify those minerals of regional significance that are to be safeguarded. These policies should cover mineral resources that are considered to be of existing and potential economic importance within the region.

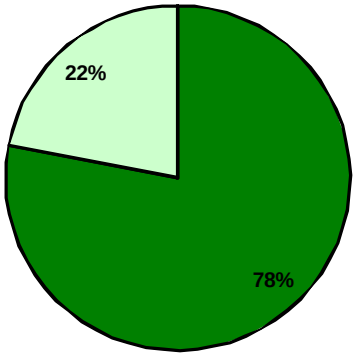


Figure A3.6 Maximise the use of substitute, recycled and marine dredged aggregates.

The prudent use of natural resources is a key objective in the nations' sustainable development strategy and this has been recognised at the regional level with a high level of integration of this important policy issue. Seven of the nine RSs identify and recognise the sustainable benefits that can be delivered through the use of substitute and recycled materials.

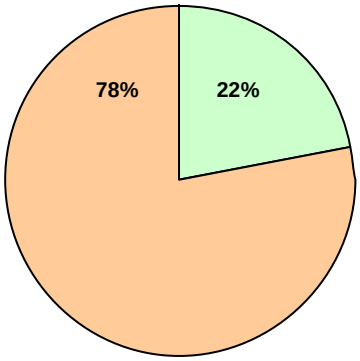


Figure A3.7 Identify preferred areas and / or areas of search

Identifying preferred areas and / or areas of search for future mineral working has been poorly integrated at the regional level. Policies contained in two RSs (South East Plan Policy M5 and West Midlands RS Policy M1) include reference to the need for Development Plans to indicate sites and areas of search, however, the remaining RSs do not consider the issue within supporting text or policy.

Given the high level strategic nature of the Regional Strategy it is recognised that the Regional Strategy is not the appropriate place to contain specific sites. Nevertheless the Regional Strategy should identify regionally significant locations.

For the purpose of the Regional Strategy the broad location of existing and proposed strategic mineral workings should be identified and where appropriate, include a map illustrating the general location of the region's important mineral resources. The map can be defined using geological and mineral resource information published or held by the British Geological Survey and others.

As an example, the identification of areas covering regionally significant mineral resources will provide a clear spatial direction for the preferred location of mineral sites needed to meet future supplies. Their delineation would help to ensure that local planning authorities, mineral and non-mineral developers and the public are aware of known and recognised mineral resources. In addition it would provide greater certainty to third parties and help ensure that the region's mineral resources are adequately considered in land-use planning decisions for both mineral and non-mineral development.

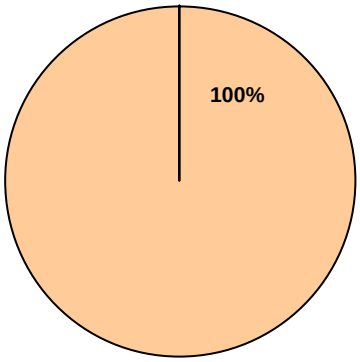


Figure A3.8 Extensions of existing mineral workings

The RSs do not currently include supporting text or policy to encourage extensions to existing quarries rather than new sites. It is considered that the Regional Strategy should include a policy reflecting national policy that preference in principle will normally be given to extensions of existing mineral workings.

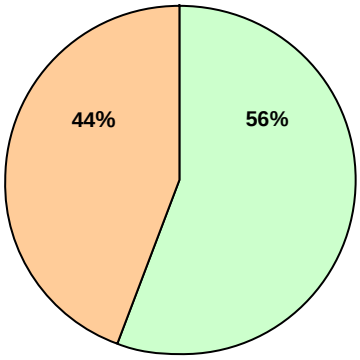


Figure A3.9 Local supply of minerals

The aim of sourcing mineral supplies close to existing facilities and their markets has not been integrated into RS policy. In the majority of cases the proximity principle or similar concepts are referred to in supporting text but this has not been followed through to policy. It is accepted that self-sufficiency of supply is not always achievable or practical at either regional or local level. Nevertheless, it is considered that Regional Strategy policy should set out the requirement for MPAs to adhere to the principles of self-sufficiency and proximity which are important

considerations in the sustainable development agenda and in reducing the impact of transportation of minerals.

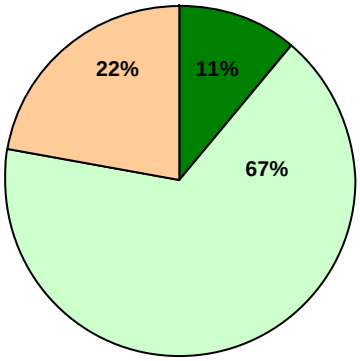


Figure A3.10 Maintenance of landbanks

There is generally a low level of integration of landbank policies for different minerals at the regional level. Only the South East Plan identifies the landbank requirements for different non energy minerals. It is the intention of MPS1 to ensure there are separate landbanks for crushed rock, sand and gravel and other minerals. Generally, the RSs include a policy for the requirement to maintain landbanks of aggregates. However, the landbank requirements for other minerals produced within the region were absent in all but one RS.

BULK TRANSPORT

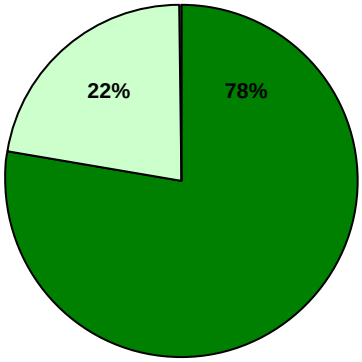


Figure A3.11 The bulk movement of minerals by rail, sea or inland waterways

Securing the closer integration of transport and land use planning is an important Government sustainable development objective. Overall there is a high level of integration of RS policy promoting and facilitating the use of sustainable modes of transport for the movement of minerals. The Regional Strategy could usefully include a policy relating to the support for proposals to improve facilities associated with the transportation of minerals by rail and water.

ENVIRONMENTAL PROTECTION

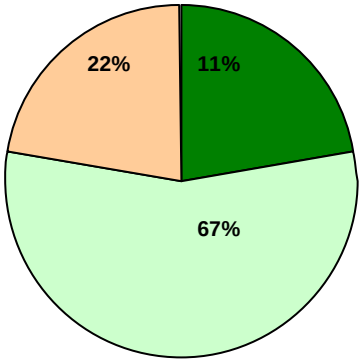


Figure A3.12 Seek to protect and enhance the character of surrounding rural and urban areas

The majority of the RSs refer to the protection of the local environment within the list of key objectives for minerals policy in the Region. However, in the majority of cases this objective has either failed to be directly followed through to minerals policy or the policy simply states that Development Plans should identify sufficient environmentally acceptable sources.

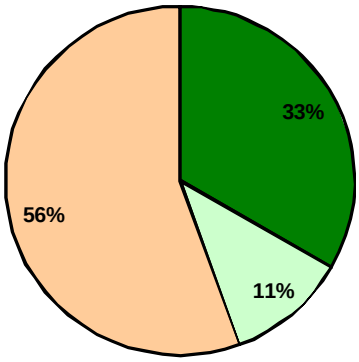


Figure A3.13 Criteria to be used in assessing mineral proposals and in formulating planning conditions

Only three of the nine RSs indicate that mineral development documents should set criteria against which individual mineral proposals will be assessed.

EFFICIENT USE

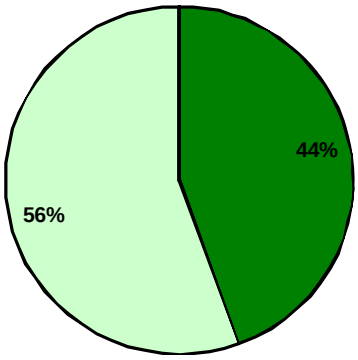


Figure A3.14 Encourage the efficient use of all minerals and alternatives

Whilst all of the RSs promote the efficient use of minerals and their alternatives (a major aspect of national minerals policy) in supporting text, only in four is it reflected in policies.

RESTORATION

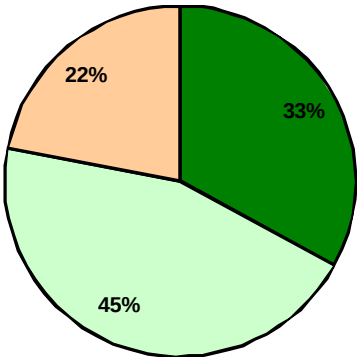


Figure A3.15 Sensitive design and appropriate and timely restoration

There is a varying level of integration and approach to restoration policies at the regional level. Overall, only three of the nine RSs address restoration of mineral sites within their minerals policy. The majority of RSs either fail to refer to restoration or the issue is only addressed in the supporting text but not followed through to policy.

It is recognised that the Regional Strategy is not the appropriate place to provide full advice on detailed restoration matters such as phasing and site management, nevertheless, regional policy should incorporate an overarching restoration policy ensuring that whatever the proposed after-use, that it is established to a high standard and land is reclaimed at the earliest opportunity.

MPS1 ANNEX 1: AGGREGATES

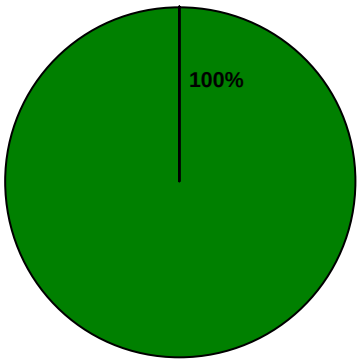


Figure A3.16 Aggregate apportionment

All nine RSs set out the regional and sub-regional apportionment figures for their respective regions.

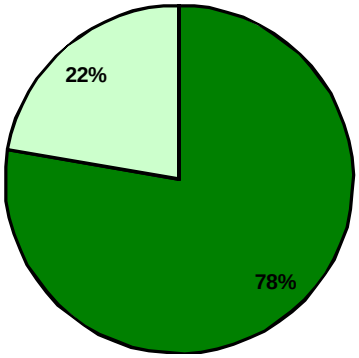


Figure A3.17 Encourage the greatest possible use of alternatives to primary aggregates

Overall there is a high level of integration of RS policy promoting the use of alternatives to primary aggregates.

MPS1 ANNEX 2: BRICK CLAY

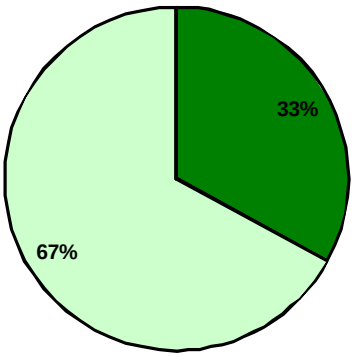


Figure A3.18 Safeguarding brick clay

In common with observations on the core safeguarding policy in MPS1 there is considerable variation in the approach and detail given to safeguarding brick clay resources. All RSs refer to safeguarding mineral resources within policy. However, the policy contained within six of the Regional Strategies does not clearly set out what minerals it applies to and, therefore, it is unclear whether brick clay resources are safeguarded. The need to safeguard brick clay is covered by policy in the remaining RSs. Policy support for the prior extraction of brick clay is absent from all RSs.

MPS1 ANNEX 3: NATURAL BUILDING STONE AND ROOFING STONE

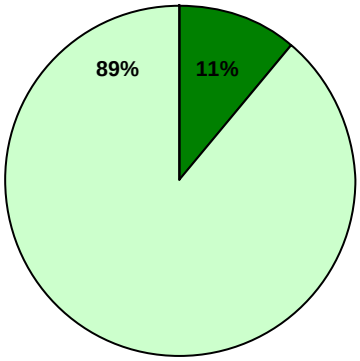


Figure A3.19 Safeguarding building stone resources

Regional Strategies have an important role to play in safeguarding existing and potential sources of building and roofing stone. It is noted that only the East Midlands Regional Plan includes a policy and strategy relating to safeguarding locally won building and roofing stone. The remaining RSs include policies for safeguarding mineral resources. However, the policies do not set out the specific minerals they apply to thereby (as is the case with brick clay) it is unclear whether building and roofing stone are safeguarded from other forms of development that might compromise potential future extraction.

MPS1 ANNEX 4: ON-SHORE OIL AND GAS AND UNDERGROUND STORAGE OF NATURAL GAS

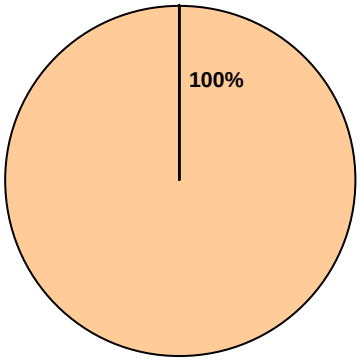


Figure A3.20 Guidance and criteria for location of conventional oil and gas development

Strategic policies relating to the location of conventional oil and gas (COG) development sites are absent from RS minerals policy.

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND

Minerals Policy Statement 2: *Controlling and Mitigating the Environmental Effects of Minerals Extraction in England* (MPS2), published on 23 March 2005 sets out the policies and considerations in relation to the environmental effects of minerals extraction that MPAs in England should follow when preparing development plans and in considering applications for minerals extraction. The guidance also sets out development management procedures, guidance on conditions as well as guidance on the proximity of working to local communities and emphasises the role of mitigation and the measures that may be employed.

PLANNING CONSIDERATIONS

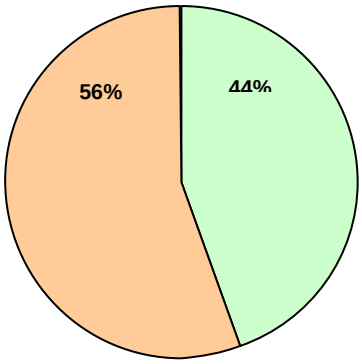


Figure A3.21 Take account the impacts of mineral working

The need to assess and control these environmental factors is absent from RSs. The Regional Strategy should include appropriate policies to ensure that LDDs consider the benefits of minerals to the economy, job creation, as well as the specific impacts of mineral operations such as noise, visual intrusion, dust, ecology etc.

PROXIMITY OF MINERAL WORKINGS TO COMMUNITIES

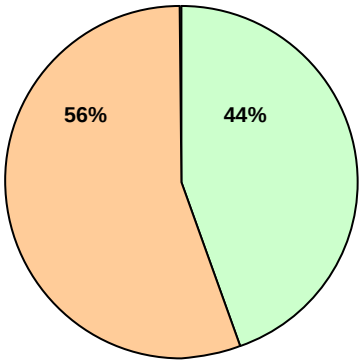


Figure A3.22 Adverse impacts on neighbouring communities are minimised

There is no specific policy in the Regional Strategies' minerals policy relating to the need to consider and ensure that unacceptable impacts on local communities or their amenities caused by mineral operations are kept to an acceptable minimum. Whilst four RSs refer to the protection of the local amenity within supporting text or as an objective it has not, however, been directly translated to minerals policy. Regional Strategy should include appropriate minerals policies relating to local amenity protection.

MPS2 ANNEX 1: DUST

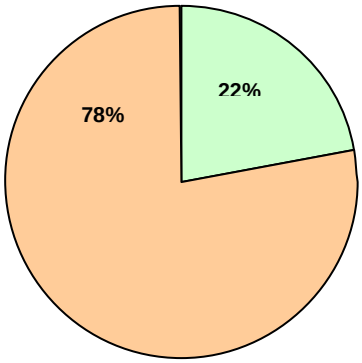


Figure A3.23 Control and / or mitigation of dust emissions

MPS2: ANNEX 2: NOISE

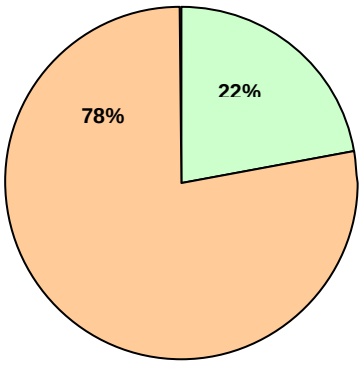


Figure A3.24 Mitigation of noise emissions

There is no specific policy in any of the nine RSs to address the need to control and mitigate potential dust / air quality and noise emissions from minerals developments. This is a matter that could be dealt with at the local level. Where there is a regional significance, the Regional

Strategy should include strategic policies to address and control air quality and noise emissions from minerals operations.

MPG3: COAL MINING AND COLLIERY SPOIL DISPOSAL

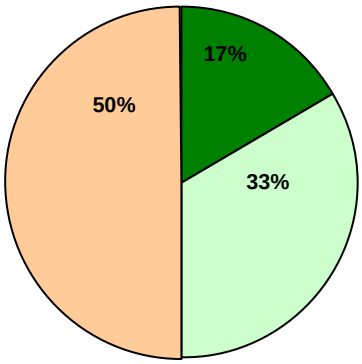


Figure A3.25 Policy tests

For the six applicable regions, there is a low level of integration of policy relating to environmental and policy tests for coal extraction. Only the North East of England Plan incorporates a policy ensuring that coal development proposals meet environmental and policy tests. A policy ensuring that coal mining, opencast working and colliery spoil disposal meet all the policy tests set out in paragraph 8 of MPG3 should be included in the Regional Strategy for applicable regions.

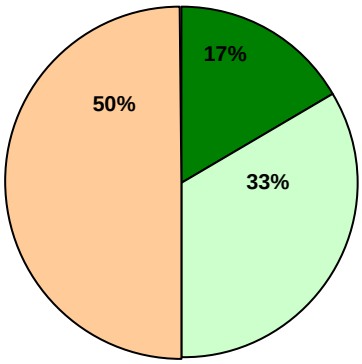


Figure A3.26 Consideration of the principal impacts of coal working and spoil disposal

Likewise, for the six applicable regions, the need to take into account the principal impacts of coal working and spoil disposal, including cumulative impacts, such as visual intrusion, air pollution, noise, dust etc. is largely absent from RS minerals policy. Paragraph 12 of MPG3 could be strengthened by stating that Environmental Impact Assessment procedures should be applied to proposals which are likely to have significant effects on the environment.

SCOPE FOR ENVIRONMENTAL IMPROVEMENTS

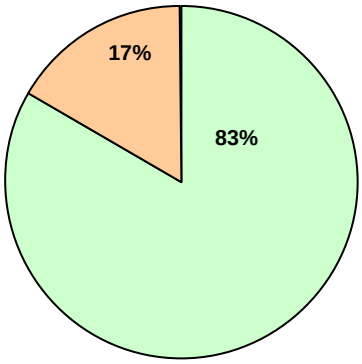


Figure A3.27 Give priority to proposals which bring about environmental improvements

Policies giving priority to proposals which achieve environmental improvements in terms of the impact of the proposed development on its surroundings and landscape are absent from RS minerals policy. In the majority of cases RS supporting text recognises the opportunities for enhancing the environment although this has not been directly followed through to minerals policy.

Where there is a regional dimension, the Regional Strategy should ensure that coal extraction proposals provide a balance of community, social, environmental and economic interests, consistent with the principles of sustainable development.

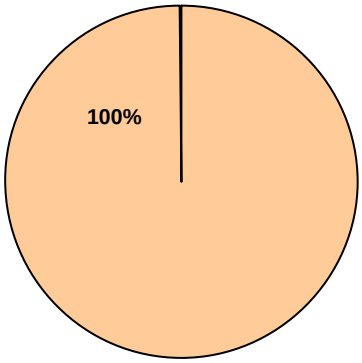


Figure A3.28 Safeguarding existing businesses and opportunities for future investment

The consideration of safeguarding existing businesses and opportunities for future investment is absent in both RS minerals policy and supporting text.

CUMULATIVE IMPACT

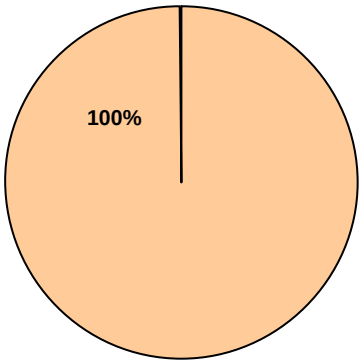


Figure A3.29 Cumulative impact of opencast developments

The potential cumulative impacts of opencast developments has not been considered either at the RS policy level or within supporting text. Where there is a regional issue, supporting text could confirm that in areas already subject to opencast extraction the cumulative impacts of a proposed opencast development on the community and environment is a material consideration which will be taken into account in determining the planning application.

STERILISATION

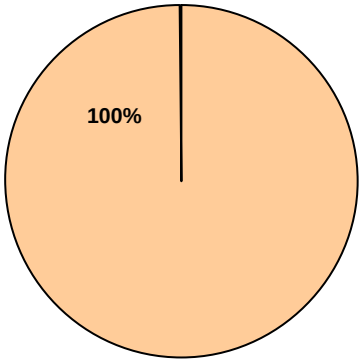


Figure A3.30 Coal extraction prior to new permanent development above coal reserves

In common with observations on the prior extraction policy in MPS1, none of the relevant regions include policy or supporting text to encourage the prior extraction of coal prior to new development.

RESTORATION AND AFTERCARE

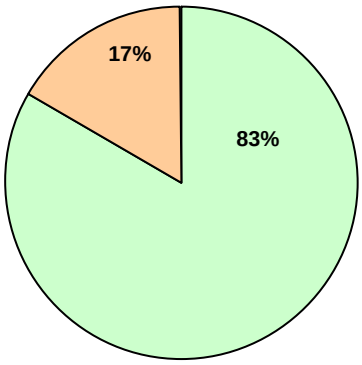


Figure A3.31 Satisfactory restoration

The research demonstrates a considerable variation in the approach adopted to the restoration of mineral sites. The RS either refers to restoration and aftercare in supporting text only or includes a general restoration policy for former mineral extraction sites. It is considered that the Regional Strategy policy should address the issue of the restoration of opencast or surface mined sites.

MPG5: STABILITY IN SURFACE MINERAL WORKINGS AND TIPS

Minerals Planning Guidance 5: *Stability in Surface Mineral Workings and Tips* (MPG5), published in January 2000, provides advice to local authorities, landowners, minerals operators and other developers on the exercise of planning control with respect to stability in surface mineral workings and tips, and on good practice in the design, assessment and inspection of excavated slopes and tips.

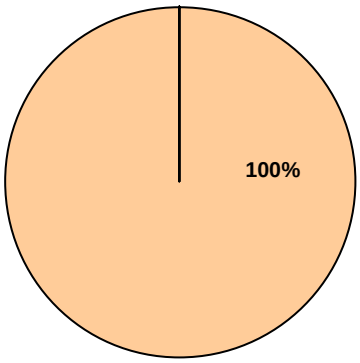


Figure A3.32 Consider stability in relation to surface workings and tips

The need for stability issues to be taken into account in the planning process is absent from all RS minerals policy and supporting text. Regional Strategy minerals policy should confirm that the physical constraints of land (i.e. ground is unstable or may become unstable due to the development proposed or for any other reason) are taken into account at all stages of the planning application process.

MPG7: THE RECLAMATION OF MINERAL WORKINGS

Minerals Planning Guidance 7: *The Reclamation of Mineral Workings* (MPG7), published in November 1996, deals with policies, consultations and conditions which are relevant to achieving the effective reclamation of mineral workings.

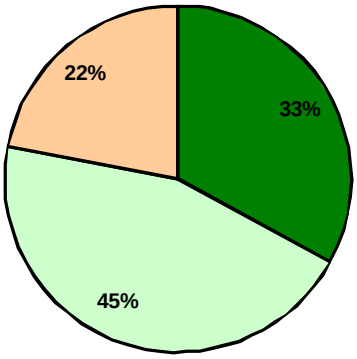


Figure A3.33 The need for restoration and aftercare of mineral workings

Similar to the observations on restoration policy in MPS1, there is a low level of integration of restoration policy at the regional level. Only three of the nine RSs address restoration of mineral sites within their minerals policy. The majority of RSs either fail to refer to restoration or the issue is addressed within the supporting text only.

MPG10: PROVISION OF RAW MATERIAL FOR THE CEMENT INDUSTRY

Minerals Planning Guidance 10: *Provision of Raw Material for the Cement Industry* (MPG10), published in July 1998, provides advice to mineral planning authorities on the exercise of planning control over the provision of raw material for the cement industry.

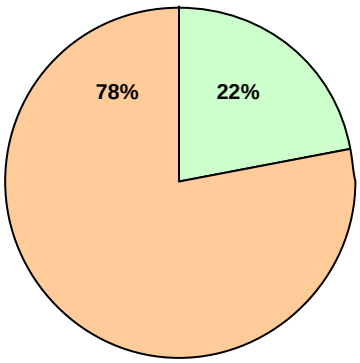


Figure A3.34 Identify areas for mineral development

Identifying broad areas for mineral development is poorly integrated within RS policy. Policies contained in two RS (South East Plan Policy M5 and West Midlands RS Policy M1) include reference to the need for forthcoming LDDs to indicate sites and areas of search. However, the remaining RSs do not address the issue within supporting text or policy.

LOCATION OF PLANT AND PRODUCTION CAPACITY

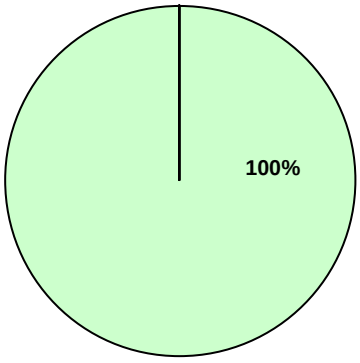


Figure A3.35 Identify areas of working and to safeguard resources reasonably near existing plants

While all nine RSs refer to safeguarding mineral resources within policy the requirement for LDDs to safeguard resources reasonably near existing cement plants is absent from all the relevant RSs.

TRANSPORT

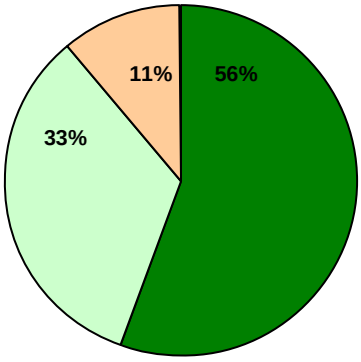


Figure A3.36 Consideration of traffic routing / review options for using rail

The encouragement of the use of sustainable modes of transport such as rail and water to transport minerals and the identification of sustainable supply routes has been well integrated at

the regional level. Five of the nine RSs address the issue within policy and three RSs through supporting text.

WATER INTERESTS

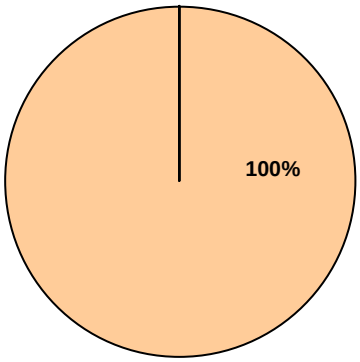


Figure A3.37 Protect the flow and quality of water supply, pollution and land drainage

The review shows that specific policies regarding the sustainable management of water resources and safeguarding water quality are absent from all RS minerals policy.

LANDBANK

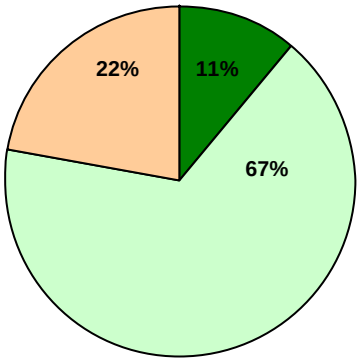


Figure A3.38 Maintaining a landbank for cement plant

Only the South East Plan sets out the commitment to maintain a landbank for cement raw materials.

MPG13: GUIDELINES FOR PEAT PROVISION IN ENGLAND INCLUDING THE PLACE OF ALTERNATIVE MATERIALS

In MPG13 mention is made of policy to maintain and encourage a competitive UK horticultural industry and that the market demand for peat should be met by indigenous sites. Notwithstanding this support for the horticultural industry, there is recognition in MPG13 that peat is a finite resource, and that its extraction can have significant environmental impacts. MPG13 confirms that future peat extraction from any new sites should be restricted to areas that have already been significantly damaged by recent human activity and are of limited or no current nature conservation or archaeological value. In addition MPG13 indicates that the subsequent restoration of such sites should give priority to wetland rehabilitation and to the enhancement of the nature conservation resource.

The five relevant RSs do not include specific policies relating to peat extraction. This is an important omission given that the Regional Strategy should provide a clear framework within which MPAs can develop policies for peat in forthcoming LDDs.

MPG15: PROVISION OF SILICA SAND IN ENGLAND

Minerals Planning Guidance 15: Provision of silica sand in England (MPG15), published in September 1996, sets out the Government's policies in relation to silica sand. MPG15 provides advice to provide an adequate and steady supply of silica sand while ensuring extraction is consistent with the principles of sustainable development and minimizing the environmental impact of extraction.

SILICA SAND PROVISION IN DEVELOPMENT PLANS

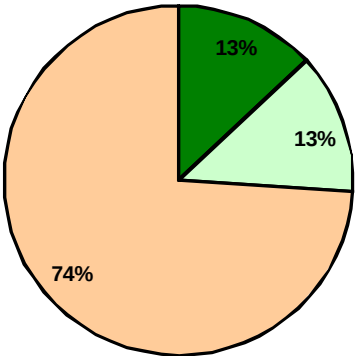


Figure A3.39 Identification of specific sites and the inclusion of preferred areas or areas of search.

Given the high level strategic nature of the RS it is recognised that it is not the appropriate place to contain specific sites, nevertheless the RS should identify preferred areas or areas of search for silica sand.

Policies contained in two RSs (South East Plan Policy M5 and West Midlands RS Policy M1) include reference to the need for Development Plans to indicate sites and areas of search. However, the remaining RSs do not consider the issue within supporting text or policy. In addition, supporting text in the South East Plan identifies the preferred areas for future silica sand extraction.

LANDBANK

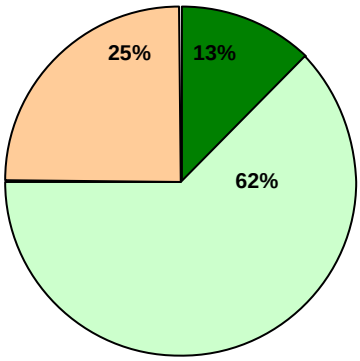


Figure A3.40 Silica sand landbank

Only the South East Plan sets out the commitment to maintain a landbank for silica sand.

CONCLUSIONS AND RECOMMENDATIONS

Overall, the Regional Strategy (RS) review demonstrates a relatively low level of integration of MPS and MPG policies at the regional level. Whilst the RS review highlighted some areas of good policy integration with MPS and MPG policy there are a number of key policy areas which are absent. It was considered that had Regional Strategies been maintained, minerals policy could be improved and brought into line with MPS and MPG guidance by considering the inclusion of the following key recommendations (recommendations not listed in priority order):

1. Identify those minerals that are produced within the region and that should be safeguarded. These policies should cover mineral resources that are considered to be of current or future economic importance within the region.
2. Identify the broad location of existing and proposed strategic mineral workings and where appropriate, include a map illustrating the general location of the region's important mineral resources, including nationally important minerals. The resources map can be defined using geological and mineral resource information published or held by the British Geological Survey and others.
3. Include sufficient supporting text to establish the key guidance on the approach to defining MSAs relevant to the region, in line with the 2006 Planning and Minerals Practice Guide (which accompanies MPS1) and the Guide to Mineral Safeguarding in England (BGS, 2007).
4. Include a policy to ensure that forthcoming LDDs encourage the prior extraction of minerals (including coal) that may otherwise be sterilised by permanent, non-minerals development.
5. Include a policy indicating that preference in principle will normally be given to extensions of existing mineral workings rather than the opening of new quarries.
6. Set out the requirement for MPAs as far as practical (possible), to adhere to the principles of self-sufficiency and proximity of minerals supply.
7. Identify the landbank requirements for regionally significant minerals (where national policy requires landbank provision).
8. Require environmental protection and enhancement policies to be included in minerals policies in forthcoming LDDs.
9. Incorporate an overarching restoration policy ensuring that whatever the proposed after-use, that it is established to a high standard and land is reclaimed at the earliest opportunity.
10. Where relevant, include a policy and strategy relating to safeguarding locally won building and roofing stone.
11. Where relevant, include policy guidance and criteria for the location of conventional oil and gas development (COG) sites.
12. Include appropriate policies to ensure that LDDs consider the specific impacts of mineral operations (including coal working and spoil disposal) such as noise, visual intrusion, dust, ecology etc as well as the benefits of minerals to the economy and job creation.
13. Include appropriate minerals policies relating to local amenity protection.
14. Include a policy ensuring that coal mining, opencast working and colliery spoil disposal meet all the environmental and policy tests set out in paragraph 8 of MPG3.
15. Regional Strategy minerals policies should ensure that coal extraction proposals provide a balance of community, social, environmental and economic interests, consistent with the principles of sustainable development.
16. Where relevant, Regional Strategy supporting text should confirm that in areas already subject to opencast extraction the cumulative impacts of a proposed opencast development

on the community and environment is a material consideration which will be taken into account in determining the planning application.

17. Supporting text should confirm that stability issues are taken into account at all stages of the planning application process.
18. Include policies addressing the sustainable management of water resources and safeguarding water quality.
19. Where relevant to the region, include policies relating to peat extraction, specifically addressing the following issues:
    - Indigenous mineral resources;
    - Preservation of peat bogs which retain a high level of nature conservation interest or important for archaeological heritage;
    - Encourage the development of alternatives to peat so that market needs can be met in different ways;
    - Restrict future peat extraction to areas that have already been significantly damaged by recent human activity and are of limited or no current nature conservation or archaeological value; and
    - Restoration schemes should give priority to wetland rehabilitation and to the enhancement of the nature conservation resource.

In the context of the abolition of the Regional Strategies, consideration may be needed as to the relationship between national and local minerals policy on matters that have been dealt with previously at regional level and how issues of strategic regional significance may be dealt with.

REGIONAL STRATEGY MATRICES

Key:

	Policy fully integrated
	Policy partially integrated, some gaps*
	Policy not integrated
	Not Applicable**

Notes:
* Policy referred to in supporting text but not translated to policy
** National policy on how authorities should carry out their functions and not for translation into regional planning policy or policy not suitable for RS minerals policy

MPS1: PLANNING AND MINERALS

Paragraph	MPS1 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
11	Exploration Consider carefully applications for mineral exploration in order to avoid or minimise adverse impacts on the environment.										
12	Survey Use the best available information on mineral resources within their areas and consider the social, environmental and economic benefits and constraints of working them.										
	Undertake regular assessments of the reserves for which planning permission has been granted for all mineral workings in their areas, taking into account the need for, distribution, production and uses of, each type of mineral, while maintaining mineral operators' reasonable needs for commercial confidentiality.										
	Assess the range, volumes and availability of waste material which may exist within reasonable proximity and which could provide suitable alternatives to primary minerals.										
13	Safeguarding Define MSAs in LDDs										The need to safeguard minerals from sterilisation is addressed in the East of England Plan (Policy M1), the East Midlands RS Minerals Policy 37: Regional Priorities for Minerals, North East RS (Policy 42), West Midlands RS Policy M1: Mineral Working for non-energy minerals, South West RS Policy RE10: Supply of aggregates and other minerals and London Plan Policy 4A.31: Spatial policies to support the better use of aggregates. However, the policies do not set out the minerals they apply to at the regional level.

Paragraph	MPS1 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
											Yorkshire and Humber RS Policy ENV4 addresses mineral safeguarding and specifically identifies all the mineral resources that will need to be safeguarded from sterilisation. The South East Plan includes a policy for safeguarding. Policy M5 relates specifically to the safeguarding of mineral reserves. North West RS Policy EM7 defines which regionally important minerals need to be safeguarded.
	Encourage prior extraction of minerals										
	In two-tier planning areas, include policies and proposals to safeguard mineral resources within MSAs in county LDDs and show MSAs in district LDDs. Counties should define MCAs and should be reflected in district LDDs.										
	District councils responsible for spatial planning of land defined in MSAs should not normally include policies and proposals in their LDDs for non-minerals development in those areas, or sensitive development around safeguarded mineral areas, where such policies would affect the potential for future extraction of minerals.										
	Safeguard existing, planned and potential rail heads, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals.										The safeguarding of minerals infrastructure is not referred to expressly within the North West Policy EM7: Minerals Extraction other than in the maintenance of such facilities. The North East RS Policy 42 refers to the promotion of the transport of minerals products by rail or water wherever practicable and Policy 43 refers to safeguarding wharves for the handling and distribution of imported materials. However, there is no firm commitment to safeguard rail heads. The safeguarding of minerals infrastructure is not explicitly referred to within the Yorkshire and Humber Policy ENV4, the policy requests MPAs to facilitate sites for reprocessing and transfer of materials.
	Identify future sites to accommodate the above facilities and reflect any such allocations in the LDDs of district councils in two-tier planning areas.										

Paragraph	MPS1 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
	Safeguard existing, planned and potential sites for mineral handling, processing and distribution. Where appropriate, identify future sites for these uses and reflect any such allocations in the LDDs of district councils.										The North East RS Policy 43 refers to safeguarding wharves for the handling and distribution of imported materials. The safeguarding of minerals infrastructure is not referred to expressly within the North West Policy EM7: Minerals Extraction other than in the maintenance of such facilities. The safeguarding of minerals infrastructure is not explicitly referred to within the Yorkshire and Humber Policy ENV4, the policy requests MPAs to facilitate sites for reprocessing and transfer of materials.
14	Protection of heritage and countryside Where minerals development is proposed within, adjacent to, or where it is likely to significantly affect a European site (potential and classified SPA, candidate and classified SAC and listed Ramsar Sites), take account of the advice contained in PPS9 and the accompanying joint ODPM/Defra Circular.										
	Do not permit major mineral developments in National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites except in exceptional circumstances										
	Consideration of such applications should therefore include an assessment of: i the need for the development ii the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need for it in some other way; iii any detrimental effect on the environment, the landscape and recreational opportunities.										
	Do not normally grant planning permission for a proposed mineral development on land within or outside a SSSI), if it is likely to have an adverse effect on a SSSI.										
	Ensure that the statutory protection given to many individual wildlife species, and the special protection afforded to European protected species, is fully taken into account when considering mineral proposals which might affect them.										
	Consider carefully mineral proposals within or likely to affect regional and local sites of biodiversity, geodiversity, landscape, historical and cultural heritage.										
	There is a general presumption against inappropriate development in the Green Belt, which should not be approved except in very special circumstances, mineral extraction need not be inappropriate development. However, in permitting mineral developments in Green Belts, authorities should ensure that high environmental standards are maintained during operation, and that sites are well restored to after-uses consistent with Green Belt objectives. All mineral-										

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	related developments in the Green Belt should be assessed against the policies in PPG2.										
	Adopt a presumption in favour of the preservation of listed buildings, nationally important archaeological remains, if mineral proposals would cause damage or have a significant impact on them, unless there are overriding reasons of national importance for the development to proceed.										
	Do not permit mineral proposals that would result in the loss or deterioration of ancient woodland, unless the need for, and benefits of, the development in that location outweigh the loss of the woodland habitat.										
	Take account of the value that existing woodland offers in terms of amenity and habitat, when considering mineral proposals.										
	Where significant development of agricultural land is unavoidable, seek to use areas of poorer quality land in preference to that of a higher quality, except where this would be inconsistent with other sustainability considerations.										
	Take account of the value of the wider countryside and landscape.										
	Have regard to the positive or negative effects that minerals operations may have on rural communities and the extent to which adverse impacts of such operations could be moderated.										The East of England Plan minerals Policy (Policy M1) or supporting text do not include reference to the protection of communities from the adverse effects of mineral working. The East Midlands RS minerals Policy 37 or supporting text do not identify the need to ensure that impacts on local communities caused by mineral operations are kept to an acceptable minimum. Paragraph 3.197 of the North East RS states that, “extraction, processing and transport should protect the environment and local amenity”. This objective has not been directly translated to policy. Paragraph 10.61 of the South East Plan states, ” extraction and processing should: • safeguard the region’s naturally occurring minerals and encourage the use of suitable alternative construction materials where appropriate • protect the environment and local amenity • minimise the adverse impacts of the transport of minerals and construction

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											materials. In addition Policy M1: Sustainable Construction states, "…..encourage the development of sustainable construction practices, and to promote good practice, reduce wastage and overcome technical and financial constraints, including identifying sustainable supply routes and seeking to reduce delivery distances."
15	<u>Supply</u> Identify at the regional level, those minerals which are of national and regional significance and include policies for them in RSS.										The supporting text to the East of England RS minerals Policy M1, East of Midlands RS minerals policy (Policy 37), West Midlands RS Policy M1 and the South West RS Policy RE10 refer to the minerals found which are of regional importance. The supporting text to the North East RS minerals policies refers to the important minerals which are currently or potentially exploitable in the Region. Policy 44 refers specifically to opencast coal. Yorkshire and Humber RS Policy ENV4 specifically identifies all the mineral resources that will need to be safeguarded from sterilisation. North West RS Policy EM7 defines which regionally important minerals need to be safeguarded. Policy M5 of the South East Plan relates specifically to those minerals to be safeguarded. Supporting text to London Plan policies 4A.30, 4A.31 and 4A.32 identifies the resources found in London.
	Aim to source mineral supplies indigenously.										The aim of sourcing mineral supplies close to existing facilities and its market is not explicitly referred to within the minerals policies or supporting text of the East of England Plan, East Midlands RS, North West RS, Yorkshire and Humber RS.

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											The North East RS states that the overall objective for minerals policy in the Region is to ensure the prudent use of the Region's indigenous natural resources in line with sustainable development objectives. Policy 42 includes reference to the need to ensure that land is made available to provide an appropriate contribution to local, regional and national needs for minerals. Self-sufficiency is acknowledged in supporting text within the South East plan but this national objective is not translated to South East Plan policy. Paragraph 10.74 of the South East Plan confirms that self-sufficiency of supply is in theory desirable. However, in practice it is unachievable at either regional or local level in the South East. Supporting text to policy RE10 of the South West RS refers to the need for MPAs to take account of the proximity principle. Supporting text to Policy M1 of the West Midlands RS supports sites in and on the periphery of Major Urban Areas. London Plan para 4.91 states, "The proximity principle dictates the best and most local use of materials that can be extracted in London."
	Before considering the extraction of primary materials, take account of the contribution that substitute or recycled materials, mineral products and marine dredged aggregates would make to the supply of materials.										Maximising the use of substitute, recycled materials and marine dredged aggregates is referred to in the supporting text to Policy M1 of the East of England Plan and East Midlands RS Policy 37. However, it has not been translated to minerals policy. South East Plan Policy M1: Sustainable Construction states, "Local development documents should promote the use of construction materials that reduce the demand for primary minerals by requiring new projects to

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											include a proportion of recycled and secondary aggregates wherever practicable" Policy M2: Recycled and Secondary Aggregates states, "The use of secondary aggregates and recycled materials in the South East should increase from 6.6mtpa (29% of the guidelines for primary aggregate production in the region) to at least 7.7mtpa (34%) by 2016 so as to reduce the need for primary aggregates extraction."
	Ensure the best integration of social, environmental and economic costs and benefits is achieved, through applying the principles of sustainable development, by carefully considering how best to maintain an adequate and steady supply of minerals for the economy and society, commensurate with protecting the environment and securing the prudent use of natural resources, and set out policies to achieve this in RSSs and LDDs.										
	Identify sites, preferred areas and/or areas of search, having taken account of environmental considerations, to provide greater certainty of where future sustainable mineral working will take place.										South East Plan Policy M5: Safeguarding of mineral reserves, wharves and rail depots confirms existing mineral sites and proposed areas of search should be identified in mineral development documents and should then be safeguarded. West Midlands RS Policy M1 states that Development Plans should indicate sites/areas where future mineral working would or would not be appropriate.
	Consider the benefits, in terms of reduced environmental disturbance and more efficient use of mineral resources, of extensions to existing mineral workings rather than new sites.										

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	Take account of the benefit, including the reduction in carbon emissions, which local supplies of minerals would make in reducing the impact of transporting them over long distances by road.										The benefits of local supplies of minerals has not been explicitly translated to policy or supporting text within the East of England Plan, East Midlands RS and Yorkshire and Humber RS. The North East RS Policy 42 includes reference to the need to ensure that land is made available to provide an appropriate contribution to local, regional and national needs for minerals. Supporting text to policy RE10 of the South West RS refers to the need for MPAs to take account of the proximity principle. Supporting text to Policy M1 of the West Midlands RS supports sites in and on the periphery of Major Urban Areas. London Plan para 4.91 states, "The proximity principle dictates the best and most local use of materials that can be extracted in London."
	Recognise the important role that small quarries can play in providing historically authentic building materials in the conservation and repair of historic and cultural buildings and structures.										
	Where extraction of more than one mineral from a site is proposed, consideration should be given to any relevant planning guidance specific to each mineral.										
	Provide for the maintenance of landbanks, i.e. appropriate levels of permitted reserves, for non-energy minerals as far as is practicable from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage sites.										East of England Plan Policy M1 and East Midlands RS only specify apportionment and not landbank requirements. The North West RS Policy EM7, West Midlands RS Policy M1 identify the need to maintain landbanks of permitted reserves. However, the policy does not refer to specific landbank requirements. The Yorkshire and Humber Policy ENV4 states MPAs must endeavour to maintain a landbank for all nationally and regionally significant minerals. However, policy does not refer to specific landbank requirements.

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											Policy RE11 of the South West RS requires MPAs to maintain a landbank of aggregates. However, policy does not refer to specific landbank requirements. Policy 43 of the North East RS only refers to landbank requirements for sand and gravel and crushed rock. The London Plan Policy 4A.32 confirms that MPAs in London should aim to maintain a landbank equivalent to 7 year's production at the 1 million tonnes per year rate.
	Enable the minerals industry, so far as is practicable, to secure productivity growth and high and stable levels of employment, which are central to long-term economic performance and rising living standards.										
16	Bulk transportation Seek to promote and enable the bulk movement of minerals by rail, sea or inland waterways to reduce the environmental impact of their transportation.										Paragraph 7.27 within the Regional Transport chapter of the East of England Plan confirms that the Regional Transport Strategy encourages movement of minerals by rail, sea and inland water and the safeguarding of related facilities. However, this has not been translated to Minerals policy. In accordance with Policy T10, a key priority will be to maximise the proportion of freight, particularly longer distance freight, by modes other than road.
17	Environmental Protection Seek to protect and enhance the character of surrounding rural and urban areas by careful planning and design of any proposals for minerals development.										
	Encourage mineral operators to adopt sound working practices to prevent/ minimise, environmental impacts to acceptable levels during the preparation, working and restoration stages.										
	Encourage mineral operators to incorporate and maintain good environmental management practices into their company procedures and apply them during the operation of their sites.										

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	Require mineral operators to seek and maintain effective consultation and liaison with the local community before submitting planning applications and during operation, restoration and aftercare of sites.										
	State the criteria to be used in assessing mineral proposals and in formulating planning conditions, to ensure that permitted operations do not have unacceptable adverse impacts on the environment or human health.										The North East of England RS Policy 42 and North West RS Policy EM7 states that plans should include criteria based policies against which individual proposals will be assessed. Paragraph 10.89 of the South East Plan confirms that mineral development documents should set criteria against which planning applications for quarries, processing plants and wharves and depots for imports can be assessed.
	Ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations caused by mineral extraction are in conformity with national guidance and are controlled, mitigated or removed at source, so as to reduce to an acceptable level any potential adverse impacts on neighbouring land and property.										
	Encourage the establishment of mineral site transport plans in consultation with the local community, dealing with matters including routing, off-site parking, considerate driving and complaints procedures.										
	Consider in association with the EA, the potential for mineral developments, individually or cumulatively, to affect the flow, quality and quantity of surface and groundwater supplies and the water table, taking account of best available options in preventing leachate generation and water pollution.										
	Ensure, in association with the EA, that in areas at risk of flooding, mineral extraction proposals do not have a significant adverse impact on flood flows or flood storage capacity. Operators should demonstrate that mineral working should not materially increase the risk of flooding at other properties or locations and, where practicable, should increase flood storage capacity.										
	Ensure that proposals for mineral extraction and the storage and tipping of mineral wastes are designed, and appropriate monitoring procedures set up, to ensure that the operation and restoration of the site does not create land instability and help prevent pollution of soil, air, surface water and groundwater.										
	Ensure that proposals for mineral extraction from coastal cliffs, beaches and dune systems do not adversely affect the stability of the coastal environment, increase the rate of coastal erosion or vulnerability to flooding, or affect sensitive habitats, landscapes or Heritage Coasts.										
18	<u>Efficient use</u> Encourage the efficient use of all minerals and alternatives to them.										Supporting text to the East of England Plan Minerals Policy (Policy M1) refers to the national aim of moving towards a more sustainable approach in the use of

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											mineral resources. However, policies to facilitate this aim are absent e.g. to encourage the use of substitute or recycled materials in order to help conserve natural resources. Supporting text to the East Midlands RS Minerals Policy (Policy 37) states that alternative and recycled sources of aggregates should form a greater proportion of future supply. However, this has not been translated to policy. Policy M2 and M4 of the South East Plan states that where practicable, substitute and recycled waste materials should be used to conserve natural resources.
	Encourage high quality materials to be used for appropriate purposes, but taking account of the need to avoid undue delays to site reclamation.										
	Minimise the amount of minerals waste produced in extraction, handling, processing and stockpiling.										
	Maximise the potential for minerals waste to be used for recycling or in-site restoration, but if not required for these purposes and where practicable, identify a market for its potential use.										
19	<u>Restoration</u> Take account of the opportunities for enhancing the overall quality of the environment and the wider benefits that sites may offer, including nature and geological conservation and increased public accessibility										The East of England Plan Minerals Policy (Policy M1) does not include a restoration policy. However, the overarching environmental protection and enhancement policies of the Plan (ENV1 and ENV3) promote the conservation, enhancement, restoration and re-establishment of habitats and species. Both supporting text and Policy 37 of the East Midlands RS refer to the restoration of former mineral extraction sites. The North East RS Policy 42 refers to the delivery of high quality restoration and aftercare and appropriate beneficial after uses. Paragraph 10.76 of the South East Plan refers to restoration and states: “Whatever the after-use, it will be essential that it is established to a high standard with appropriate aftercare and management.”

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											Although this requirement has not been translated into minerals policy. The Yorkshire and Humber RS refers to restoration as a development control related consideration which is covered in MPS1 and 6 and, therefore, is not included at all in the RS.
	Consider the opportunities that sites may offer for the development of new woodland areas and for providing networks of habitats.										
	In order to avoid the possibility of mineral working resulting in dereliction, ensure land is reclaimed at the earliest opportunity and that high quality restoration and aftercare of mineral sites takes place through the provision of guidance on suitable or preferred after-uses and reclamation standards, and the use of conditions and legal agreements, as appropriate.										
	Ensure proposals for restoration and aftercare of sites include details of appropriate phasing of progressive restoration, final landform and landscape and monitoring procedures.										
	Develop a strategy for inactive sites with planning permission for future working, which are considered unlikely to be reactivated in the foreseeable future.										
	Maintain or improve the Public Right of Way network around restored mineral sites as far as practicable.										
	Do not seek or require bonds or other financial guarantees to underpin planning conditions, except as set out in MPG7.										
	Where restoration of mineral workings is through landfill or to a wetland habitat, consult the owner or operator of civil and military aerodromes within 13km, in order to assess the likelihood of increasing the bird strike hazard.										
	Annex 1: Aggregates										
3.2	RPBs should apportion the Regional Guidelines to the local authority level in collaboration with their constituent MPAs, taking account of technical advice from the RAWPs. The apportionment should be subject to sustainability appraisal, incorporating strategic environmental assessment.										
3.3	RAWPs will undertake annual monitoring of aggregates reserves and supply and will prepare commentaries on results, especially supply and demand, for the Department and the RPBs. Where necessary, RAWPs should liaise with the Regional Technical Advisory Bodies on planning for the management of wastes.										
3.4	RPBs must have regard to the current National and Regional Guidelines for Aggregates Provision in England, in preparing RSS. They should use the process of reviewing and revising RSS to update sub-regional apportionments. If a MPA notifies the RPB that it is unable to identify sufficient resources to meet the apportioned supply over the plan period at acceptable environmental cost, the RPB should consider the consequences for supply and demand within the region taking advice from the RAWP, and consulting the Department if										

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	there are likely to be national implications. A shortfall in one part of a region should, where practicable, be made up for elsewhere in the same region.										
3.5	The Secretary of State will, where appropriate, intervene in a RSS that does not take full account of the regional aggregates guidelines and of agreed sub-regional apportionments.										
3.6	In preparing their LDDs, MPAs should make provision for the sub-regional apportionment of the current National and Regional Guidelines for land-won aggregate in the approved RSS or, if there is not an approved RSS, as agreed by the RPB and endorsed by the Secretary of State.										
3.7	Provision should take the form of specific sites, preferred areas and/or areas of search identified in LDDs. An approach to this work is set out in the MPS1 Practice Guide. Specific provision may need to be made for aggregates that meet particular or demanding specifications, such as those for high polished stone value, building or asphalting sand.										
3.9	It is important that, once identified, the main options considered for making the agreed provision are subject to sustainability appraisal before leading to a preferred option in LDDs.										
3.10	If it is not possible for a MPA to identify sufficient resources in its area to meet the apportioned supply over the plan period at acceptable environmental cost, this should be reported to the RPB as soon as possible.										
3.11	The Secretary of State will, where appropriate, intervene in the preparation of LDDs where MPAs do not pay due regard to the agreed apportionment.										
4.1	MPAs should use the length of the landbank in its area as an indicator of when new permissions for aggregates extraction are likely to be needed. The landbank indicators are at least 7 years for sand and gravel and at least 10 years for crushed rock. A longer period may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets, and productive capacity of permitted sites. A landbank below these levels indicates that additional reserves will need to be permitted if acceptable planning applications are submitted. Because individual sites, when permitted, need sufficient reserves to be economically viable, consideration of the landbank needs to be flexible enough to allow for this. A large existing landbank bound up in very few sites should not be allowed to stifle competition.										
4.2	MPAs should consider and report on the need to review policies in their LDDs as part of their annual monitoring report to the Secretary of State. This should be done in time to allow for action before the remaining provision falls below the agreed apportioned level. If review and updating take place regularly then maintaining a landbank beyond the end of the plan period is not an issue.										
4.3	If, taking all of these matters into account, existing landbanks are judged by a MPA to be excessive: • new planning permissions should only be given where it can be shown that demand could not be met from the existing permitted reserves, for example, for reasons of type and quality of the aggregate and/or distance to the market; • the industry should consider voluntarily agreeing to revocation, or prohibition orders, in respect of planning permissions at sites that are unlikely to be worked again.										

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4.4	MPAs should carry out, in consultation with the RAWPs and other relevant bodies, and publish the results of, regular reviews of sites that have not been worked for 10 years or more, to assess whether production is likely to begin again. Sites that individual operators agree are unlikely to be worked again should be excluded from the landbank calculation, and they should be made subject to prohibition orders to remove the possibility that subsequent changes in ownership could unexpectedly revive development proposals.										
4.5	Where there is a distinct and separate market for a specific type or quality of aggregate, for example high specification aggregate, asphalting sand, building sand or concreting sand, separate landbank calculations and provisions for these may be appropriate.										
5.1	It is Government policy to encourage the greatest possible use of alternatives to primary aggregates. The National and Regional Guidelines for Aggregates Provision in England set a target that will be reviewed annually and revised when necessary. Guidance on planning for waste management is contained in Planning Policy Statement 10.										Supporting text to the East of England Plan Minerals Policy (Policy M1) refers to the national aim of moving towards a more sustainable approach in the use of mineral resources. However, policies to facilitate the use of alternatives to primary aggregates are absent. Supporting text to the East Midlands RS Minerals Policy (Policy 37) states that alternative and recycled sources of aggregates should form a greater proportion of future supply. However, this has not been translated to policy. South East Plan Policy M1: Sustainable Construction states, “Local development documents should promote the use of construction materials that reduce the demand for primary minerals by requiring new projects to include a proportion of recycled and secondary aggregates wherever practicable” Policy M2: Recycled and Secondary Aggregates states, “The use of secondary aggregates and recycled materials in the South East should increase from 6.6mtpa (29% of the guidelines for primary aggregate production in the region) to at least 7.7mtpa (34%) by 2016 so as to reduce the need for primary aggregates extraction.”

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5.2	Where mineral or other wastes suitable for use as aggregates have been deposited in tips, without the benefit of planning permission for future use, and these have revegetated and blended into the landscape, any applications for working of these materials should be dealt with in the same way and, if permitted, worked to the same standards as a successful new application for primary mineral extraction.										
6.1	It is Government policy to encourage the supply of marine-dredged sand and gravel to the extent that environmentally acceptable sources can be identified and exploited, within the principles of sustainable development.										
7.1	Identifying, assessing, operating and restoring borrow pits should be undertaken to the same standards as those for long-term mineral workings and should be subject to similar levels of consideration of environmental impacts.										
	Annex 2: Brick Clay										
3.1	MPAs should ensure that brick clay resources are safeguarded in accordance with MPS1. Some types or qualities of brickclay that have desirable properties, especially Etruria Marl and fireclay, are nationally, regionally or locally scarce. Relevant MPAs should safeguard acceptable sources of Etruria Formation clays and fireclays from other types of development and should, where practicable, encourage prior extraction of clay where built development is planned.										Policy M1 of the East of England Plan, Policy 37 of the East Midlands Plan, Policy 42 and 43 of the North East of England Plan, South West RS Policy RE10 refer to the safeguarding of mineral resources. However, they do not clearly set out the minerals it applies to. Paragraph 3.203 of the North East RS states that, "MPAs should liaise to ensure that the landbank for brick clay is sufficient to support the region's brick works." However, this has not been translated to policy. Policy M4 of the South East Plan requires the MPA to plan for a permitted reserve of clay for brick and tile production, sufficient to last for at least 25 years at current production rates.
3.2	It is generally desirable that brick clay should be extracted as close as practicable to the brickworks that it is supplied to. MPAs should initially consider the potential for extraction of brick clay close to the works and the potential for extensions to existing planning permissions to maintain supplies. Where supply is needed from more distant sources these may exist in a MPA's area other than that where the brickworks is located. The relevant LPA should therefore liaise in planning for appropriate sources of provision. Where a works is likely to require supplies from more than one region, the relevant RPBs should assist in the necessary discussions.										
3.3	MPAs should have regard to the need for clay supply for local use and repair of heritage buildings to meet the objectives of PPS1, and should assess the potential for environmentally acceptable extensions to, and replacements for, such sites. Policies should be proportionate to the levels of potential impacts.										

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3.4	When developing planning policies and considering planning applications, MPAs and LPAs should take account, as appropriate, of: • the need for provision of brick clay from a number of different sources to enable appropriate blends to be made. Where materials for blending need to be supplied from various sources, or for some types of clay that are used in small quantities for blending, it may be necessary to hold stocks of such clay at the brickworks or elsewhere; • the need to provide a stock of permitted reserves to support the levels of actual and proposed investment required for each new or existing manufacturing plant and the maintenance and improvement of existing plant and equipment. This will normally be sufficient to provide for 25 years of production. Separate provision may be needed for particularly scarce clays, such as Etruria Marl and fireclay, that will serve a number of works, sometimes over long distances; • the need to meet the likely level of demand for clay at each manufacturing plant, part or all of which may sometimes have to be fulfilled from another MPA area, to avoid having to meet unforeseen demands in environmentally damaging ways; • in some cases, the scope to use negotiated planning agreements to restrict, if necessary, the use of the clay extracted for brick making to the associated brickworks in order to reduce environmental impacts; and the need to recognise the potential for sales of clay for other uses, particularly engineering purposes, such as lining, daily cover and capping material for landfill sites, the lining of canals, lakes and ponds, as construction fill or as bulk fill suitable for roadway construction or for the manufacture of lightweight aggregate or cement. In some cases, clay pits may be operated mainly or wholly for these other purposes rather than for brick clay extraction.										
3.5	Where scarce reserves of Etruria Formation clays or fireclays cannot be used when extracted, consideration should be given to the potential for stockpiling the material on an environmentally acceptable site, either on or in the ground, until it is needed. Proper account should be taken of the environmental impacts that are associated with stockpiling sites when considering whether these should be provided.										
3.6	MPAs should encourage coal producers to make the best possible use of fireclay reserves including, where practicable, finding a market for any fireclay associated with the coal that is being extracted, so that it remains available for use rather than being replaced in the void during site restoration.										
3.7	Where a brickworks is supplied from a number of clay pits some distance from the works, impacts of road traffic between these and the works should, as far as possible, be minimised through off-road transport, such as field conveyor systems, dedicated haulage routes, and careful consideration of distribution networks and vehicle routes.										
3.8	MPAs should liaise with the Environment Agency and LPAs to ensure that where planning conditions for manufacturing plant are necessary they should complement, not duplicate, conditions contained in IPPC permits.										
3.9	The brick, clay pipe and clay tile manufacturing industry is encouraged to ensure that: • when clays are to be blended, the resulting blend should not contain a proportion of premium clays in excess of that needed for the specified use.										

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	Annex 3: Natural building and roofing stone										
3.1	RPBs and the Mayor of London should set out policies in their RSSs or the Spatial Development Strategy in London, for safeguarding nationally, regionally and locally significant building stone resources.										Building and roofing stone is recognised within supporting text as minerals of national and regional significance in the East of Midlands RS and Policy 37 refers to the safeguarding of land-won minerals and it separately refers to the safeguarding of minerals that are required to maintain historic buildings and monuments and new construction that reflects local character. Paragraph 3.203 of the North East RS states that it is considered that specific policies on building stone are not necessary. The need to safeguard minerals from sterilisation is addressed in the East of England Plan (Policy M1), North East Plan, West Midlands RS Policy M1: Mineral Working for non-energy minerals, South West RS Policy RE10: Supply of aggregates and other minerals and London Plan Policy 4A.31: Spatial policies to support the better use of aggregates. However, the policies do not set out the minerals they apply to at the regional level.
3.3	Many important sources of building stone have been long disused, and would need a new planning application to be worked again. Important historic quarries should be safeguarded, as far as practicable, where it can be shown: • that the quarry was the original source of stone used in the construction of a historic building or monument; or • that the stone is technically compatible with material in the structure to be repaired; and • that stone from the quarry is, or will be, required for restoration or conservation purposes in the absence of viable alternatives.										
3.4	MPAs should consider whether small-scale extraction of building stone might be sustainable at, or close to, relic quarries, some of which have been designated in respect of industrial archaeology, wildlife and geological conservation, where small scale extraction would contribute to repair of historic buildings without compromising the requirement to protect designated site. Any extraction and restoration proposals should have proper regard to the purposes of the designation both during and after extraction.										

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3.5	LPAs should notify Natural England and English Heritage when a development proposal is made which affects an old building stone source to provide an opportunity for its significance to be assessed.										
3.6	MPAs and LPAs should have regard to the local, regional and national need for certain building and roofing stones for the conservation and restoration of England's historic built environment where their use is specified: • because of aesthetic or technical properties, particularly where English Heritage advises that stone used for restoration or conservation purposes must be a compatible match, usually from a similar lithological horizon as the stone that was originally used; • to help meet the objectives of PPG15.										
3.7	MPAs and LPAs should liaise on and have regard to the local, regional and national need for certain building stones for new construction, within the context of the RSS, where their use is specified because of: • proven durability; • aesthetic or technical properties, particularly where new construction is to take place in the midst of older buildings constructed of a certain stone; and • any design requirements set out in local design guides, planning policies and supplementary planning documents.										
3.8	Where an exact match of stone is not possible, potential alternative sources of supply, if any, should be considered.										
3.9	MPAs should, as far as is practicable, identify in their LDDs, quarries of importance to the built heritage, whether disused or active, and describe the approach to be taken to these in terms of minerals and other planning applications.										
3.11	Each proposal needs to be considered on the basis of its specific characteristics and potential environmental and landscape impacts, and: • whether formal environmental assessment under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 ("the 1999 EIA Regs") is justified for proposals to develop and operate small stone quarries; and • where proposals to re-activate dormant quarries are submitted, MPAs/LPAs will, under the Reviews of Interim Development Order permissions and Old Mineral Permissions (under the Planning and Compensation Act 1991 and Environment Act 1995 respectively), have to consider updated operating and restoration conditions for the working of the quarries. Similarly, updated conditions for all active quarries will need to be considered as part of the periodic review process under the 1995 Act.										
3.13	…High quality stone suitable for building and/or roofing, particularly that which is scarce and may be required for future conservation work, should not be used for the production of aggregates where lower quality rock suitable for crushing would suffice.										
3.14	MPAs, LPAs and minerals operators should consider carefully, in liaison with Natural England and English Heritage, the potential for partial restoration of building stone quarries before the										

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	expiry of planning permission for extraction. This should be linked, where practicable, to new opportunities for archaeological, geological, wildlife and industrial heritage conservation and education, but retaining, where practicable, the potential for future access to supplies of small quantities of stone that may be needed at intervals in the future for repair of the historic built environment for which the site in question is an appropriate source.										
	Annex 4: On-shore oil and gas and underground storage of natural gas										
3.1	The industry should make available to MPAs information on the extent of known reserves of oil and gas, its forward plans and any potential sites for exploration, appraisal or production that it is considering and for which it holds exploration or production licences. However, MPAs should note that much of this information may be commercially sensitive.										
3.2	Conventional oil and gas development broadly consists of 3 phases- exploration, appraisal and production. RPBs should set clear guidance and criteria for location of Conventional oil and gas development (COG) development sites within the areas that are licensed for oil and gas exploration or production. MPAs should include policies in their LDDs that distinguish clearly between the three phases and should also identify any environmental and other constraints on production and processing sites, within areas that are licensed for oil and gas exploration or production, in those documents.										Paragraph 10.98 of the South East Plan refers to oil extraction. It states, "While there is no specific regional policy regarding hydrocarbons or fuller's earth, it is important that mineral planning authorities with such resources within their area consider these as part of their preparation of mineral development documents." Policy M4 of the West Midlands RS refers to the need for Development Plans to include policies which take account of existing national guidance in relation to coalmining, emerging guidance on oil and gas and new technologies and revisions to national energy policy.
3.4	Seismic Investigations Permitted Development Rights should not be withdrawn without very good reasons.										
3.5	In all cases the industry should fully discuss its proposals with the LPAs and statutory agencies. MPAs and highway authorities should be informed of the intended route for the survey, and prior notification given to residents on the immediate survey route. In two-tier planning areas, where county councils are the MPAs, operators should also ensure that district councils are aware of the intended investigations, and their commencement dates.										
3.7	Drilling Policies should be drafted to ensure that each application to explore will be considered on its own merits, in accordance with the present guidance, and in relation to LDDs and any other relevant material considerations. These considerations should not include any hypothetical future proposal for development of the oil or gas resource.										
3.8	In submitting an application for drilling, the developer should indicate what knowledge has										

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	been gained from seismic investigations in selecting the well site. Policies should indicate that, subject to the effects on the environment being appropriately addressed and mitigated, and a satisfactory restoration and aftercare plan prepared, applications for exploration may be favourably considered.										
3.9	Where environmental or other conditions might preclude vertical drilling, MPAs should discuss with the industry the option of employing directional drilling. LDD policies should make clear that this approach will be adopted and that careful consideration will be given to factors such as: • the need for night-time drilling for safety reasons; • locating sites to minimise visual intrusion; • controlling vehicular activity and vehicle routing; • controlling the disposal of mud and other drilling residue; and • controlling noise and light emissions from drilling rigs with particular reference to night-time operations.										
3.10	Section 106 agreements should not duplicate planning conditions or conditions attached to the award of a licence by DTI.										
3.11	Because of the intrusive nature of drilling operations, policies should provide that these will not be permitted close to houses and other noise-sensitive properties unless noise levels from drilling and associated operations can be reduced to acceptable levels.										
3.12	Particular care should be taken about siting all types of oil and gas wells close to water supply wells or boreholes.										
3.13	<u>Appraisal</u> As with all other forms of development, an application for an appraisal well must be considered on its merits. This consideration should take into account the long-term suitability of the site since such wells may subsequently be required for production purposes. The other factors listed above for exploration wells are equally relevant to appraisal wells. LDD policies should reflect this.										
3.14	<u>Production and Distribution</u> Gathering stations should not be sited where they would have unacceptable adverse environmental impacts.										
3.15	Pre-application discussions between the MPA and the industry on potential production proposals are essential. For the larger finds, it will be particularly important to establish how far the envisaged surface production facilities would be sufficient to handle the expected output from the find, or related finds as a whole.										
3.16	Policies should make clear that conditions are likely to be imposed governing, amongst other matters: • timing and method of gas flaring, (also controlled by DTI under the Energy Act 1976); • access; • the direction of vehicles leaving the site;										

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	• noise emissions; • prevention of pollution associated, for example, with possible spillages; • the means of disposal of unwanted gas; and • the method by which the end product is to be transported from the well site or gathering station.										
3.17	Operators should address all of these points in their planning applications and, where necessary and appropriate, in supporting environmental statements. Where possible, export terminals should be sited where they can feed into a long distance pipeline, or are connected to a railway or water transport, in preference to relying on road transport.										
3.18	Where pipelines are to be used for transporting extracted oil and gas it will be necessary for operators to obtain consent from the appropriate authorities (the relevant MPAs, the Environment Agency and the Health and Safety Executive) for routes, vehicle access, the location of machinery storage areas, and of pipes, pipelaying equipment and other construction materials. In drawing up proposals, operators should avoid environmentally sensitive locations and take account of any potential impacts on nature conservation, for example the movement of animals. Proposals should also take into account the possible implications for agricultural activities, consulting where necessary with associations that represent agricultural interests.										
3.19	For pipelines less than 10 miles in length, planning permission is required from the MPA. Longer pipelines require authorisation from the SSTI under the Pipelines Act 1962, although the usual planning and environmental considerations would be taken into account. The views of the LPAs, the Environment Agency, Natural England, the Health and Safety Executive, landowners and tenants should be sought. Also, a full environmental impact assessment statement would normally be required. On granting authorisation, the SSTI would then direct that planning permission for the pipeline shall be deemed to have been granted. In all cases, it is essential that land affected by pipeline development should be properly restored.										
3.21	Coalbed methane (CBM) MPAs should identify in their LDDs the extent of the coalfield with reserves at depths below the surface of between 200-1500m and of areas which are licensed for CBM by the Coal Authority. The LDDs should also list the principal constraints likely to affect any proposed production and processing sites within those areas.										
3.22	LDDs should make it clear that planning permission for exploration and appraisal does not carry with it any presumption that long-term production from those wells, or that the development of further wells, will be permitted.										
3.23	The main environmental impacts associated with CBM development are similar to those for COG. However, particular attention should also be given to the abstraction of any groundwater and its impacts, as well as the disposal of water produced during well stimulation and production of gas. The Environment Agency must be consulted and the relevant permission(s) obtained before any disposal or abstraction takes place.										
3.24	Accordingly, LDD policies should indicate that: • where initial proposals are environmentally acceptable and accord with the principles of sustainable development, planning permission might be granted for the initial hub of exploration wells, subject to their removal and restoration, if gas is not found in										

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	commercially viable quantities (or they are not needed to keep pumping water to protect production from an adjoining gas area); • this does not extend to the later approval of detailed schemes for production from those wells should the occasion arise; • options for the further development of the area should be presented for consideration in principle at the same time, to ensure that the immediate and potential longer-term environmental impacts of the development are understood by the MPA and that the applicant is aware of the risk of a subsequent refusal of planning permission; • further hubs of wells for the exploration, appraisal or later production phases will require separate applications and permissions on the same basis, supported where necessary by an environmental statement (or supplementary statement) related to the further development for which permission is sought; and • the industry should therefore discuss its proposals fully with the MPA well before a formal planning application is made, so that all the options and longer-term issues can be properly considered.										
3.25	MPAs in coalfield areas should, therefore, encourage capture and use by including appropriate policies in their development documents.										
3.27	<u>Underground coal gasification</u> DTI has examined the opportunities for UCG and its potential contribution to the future UK energy supply. If this source of energy is to be exploited then an experimental UCG development would need to be undertaken. If any such experiment were to be proposed in England, it would be subject to all the usual planning procedures including the Secretary of State's power to call-in applications for her own determination.										
3.28	Because of the absence, so far, of any UCG development in the UK, the technique is not referred to in the Schedules to the 1999 EIA Regulations or the accompanying Circular 02/99.3 However, if a MPA were to receive a pre-application enquiry regarding a UCG proposal it should pay close attention to the potential environmental impacts, both above and below ground, in considering whether an environmental impact assessment is required. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.										
4.4	<u>Underground Storage of Natural Gas</u> Therefore, county and district authorities in areas that have underground gas storage potential should discuss this issue and agree coherent policies for dealing with applications. When applications are submitted, these authorities should agree which are county council matters and which are not, depending on the circumstances of the application, including all the development that is proposed. Unitary and National Park authorities should also, where appropriate, develop planning policies for dealing with applications for underground gas storage.										
4.5	MPAs should consider whether there is a need for policies on underground gas storage in their LDDs on the basis of local geological circumstances. Where appropriate, MPAs and LPAs should collaborate in developing these policies, and areas where there might be potential for such storage should be indicated in their LDDs.										

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4.6	MPAs should take account of matters concerning surface and underground development associated with gas storage that are material to the determination of the planning application										
4.7	General issues that should also be taken into account are: • that Government welcomes proposals to increase flexibility in the UK gas market, but is not prescriptive about how this is to be achieved. Proposals are a commercial matter for the market; • the national energy policy benefit of the proposal; • the likelihood that suitable onshore locations for gas storage will be very limited in number, due to the lack of suitable geographical features for underground gas storage, so that alternative possibilities may not be available; • the acceptability of proposals and measures to mitigate the potential environmental • impacts of exploration and development of the proposed facility, in terms of both the surface and subsurface works; and the integrity and safety of underground facilities especially in terms of maintenance of the pressure regime, the prevention of leakage of gas and the avoidance of pollution.										
4.8	It is likely that most applications for significant gas storage facilities will require environmental impact assessment. Applications and any accompanying environmental statements should include adequate information on the suitability of proposed sites for secure and safe containment of gas or the means of making them so, and the avoidance and control of pollution. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.										
4.9	Applicants should confirm with the MPA whether hazardous substances consent under the Planning (Hazardous Substances) Act 1990 is required. The Health and Safety Executive are statutory consultees in the process and would be consulted on whether there are safety grounds for refusal of applications.										

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND

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9	An environmental assessment of an extension or a modification to an existing site should concentrate on the effects of the proposed modification, and take into account operations on the existing site affected by the modification. The assessment should consider if the modification could lead to a level of environmental impact that would be unacceptable for the site as a whole, or if the proposed extension would bring the perimeter of the site closer to existing communities (thereby changing the nature or degree of the impact on existing communities)										
10	Policies and proposals in development plans have a key part to play in meeting the Government's objectives of ensuring that development and growth are sustainable. They should have regard to Planning Policy Statement 1 (PPS1)2 Delivering Sustainable Development (2005) and Minerals Planning Guidance Note 1 (MPG1): General Considerations and the Development Plan System (1996) (currently under review) which provide advice on planning policy for Local Planning Authorities (LPAs), MPAs and the minerals industry. When, as expected, MPG1 is replaced by Minerals Policy Statement 1 (MPS1), similar regard should be given to this successor document.										
11	Development plan policies and proposals for minerals extraction and associated development should take into account: • the impacts of mineral working, such as visual intrusion, dewatering, water pollution, noise, dust and fine particulates, blasting and traffic; • the impacts on landscape, agricultural land, soil resources, ecology and wildlife, including severance of landscape and habitat loss, and impacts on sites of nature conservation, archaeological and cultural heritage value; • the benefits such as providing an adequate supply of minerals to the economy and hence for society (including construction materials needed for the development of national infrastructure and the creation of sustainable communities), creating job opportunities, and the scope for landscape, biodiversity and amenity improvements through mineral working and subsequent restoration; and • the methods of control through planning conditions or agreements to ensure that impacts are kept to an acceptable minimum.										Paragraph 10.64 of the South East Plan states, "Mineral development frameworks should include policies to manage specific impacts such as noise and dust and encourage good site management and effective restoration." Although these requirements have not been integrated to minerals policy. Paragraph 10.72 states, "Minerals make a crucial contribution to wider economic and development activity."
12	Policies and proposals should take into account the level of existing activity and impacts, the duration and nature of proposals for new or further working, and the extent of impacts which a particular site, locality, community, environment or wider area of mineral working can reasonably be expected to tolerate over a particular or proposed period. With respect to an individual site, the effect of all relevant impacts (i.e. of noise, dust, traffic, on landscape etc.) should be considered objectively. Impacts that are acceptable individually should not be regarded as unacceptable in combination without a proper assessment. MPAs should also have regard where relevant to cumulative impacts of simultaneous and/or successive working of a number of sites in a wider area of commercially-viable deposits. These may affect communities and localities over an extended period, depending on the nature, age and size of the site(s) (see paragraphs 24–29).										
13	Other development plan policies should ensure that development other than mineral extraction does not encroach on existing mineral operations, thus subjecting that development										

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	to a level of environmental impact that may be unacceptable and leading to complaints about the adequacy of planning conditions for the mineral operation concerned.										
14	Before applications are submitted to an MPA for determination, developers should discuss their proposals with the relevant local authorities and any other organisations whose interests may be affected by the proposed development. They should consult the Environment Agency and/or the local authority as regulator in respect of any pollution control requirements. Issues such as noise, traffic, dust, blasting, drainage, access arrangements, working methods, pollution control, landscape, restoration, after-use and stability should be discussed with the appropriate bodies prior to making an application. Developers should consult the Environment Agency to evaluate the hydrological, chemical and ecological impact of any workings on groundwater and surface water supplies.										
19	MPAs and developers and their advisers should have regard to the general advice on the use of planning conditions in DOE Circular 11/95 The Use of Conditions in Planning Permission, the advice on planning conditions specific to mineral permissions in Minerals Planning Guidance Note 2 (MPG2): Applications, Permissions and Conditions (1998) and the advice on planning obligations in DETR Circular 01/97 Planning Obligations and any subsequent advice that may be issued which updates and revises these documents.										
20	MPAs should ensure planning conditions are enforceable. They must be precise, capable of being monitored (infringements must be detectable), defined sufficiently for breaches to be provable, necessary, relevant to planning and to the development, and reasonable. The two principal types are: • performance requirements; and • the use of specific ameliorative measures.										
21	Performance Requirements Effective planning requires judgements based upon local circumstances and local objectives. MPAs should set out measurable performance requirements, such as noise or vibration limits, that make clear to operators what is expected of them so they can make their own decisions on the most cost effective way of meeting those criteria, while allowing outcomes to be monitored. MPAs should not specify methods for securing compliance that could inadvertently and unreasonably prejudice the flexibility of the operator's working methods and profitability. Performance requirements should usually be designed to: • achieve a minimum environmental quality; • limit degradation of the environment; and • encourage improvement.										
22	MPAs should also have regard to the possibility in some situations of requiring the operator to provide accessible monitoring systems, and making audited reporting by the operator (e.g. under an EMS), a condition of the permission. Where appropriate, MPAs and operators should seek to reach planning agreements with owners of sensitive properties to ensure access for monitoring purposes.										
23	<u>Amelioration Measures</u> These should be specified as planning conditions to mitigate adverse effects where there is difficulty in defining a performance criterion which can be readily monitored and enforced.										

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24	MPAs should ensure that the adverse effects of mineral working on neighbouring communities are minimised.										The East of England Plan minerals Policy (Policy M1), East Midlands RS minerals Policy 37 or supporting text do not include reference to the protection of communities from the adverse effects of mineral working. Paragraph 3.197 of the North East RS states that, "extraction, processing and transport should protect the environment and local amenity". This objective has not been directly translated to policy. Paragraph 10.61 of the South East Plan states, " extraction and processing should: • safeguard the region's naturally occurring minerals and encourage the use of suitable alternative construction materials where appropriate • protect the environment and local amenity • minimise the adverse impacts of the transport of minerals and construction materials. In addition Policy M1: Sustainable Construction states, "…..encourage the development of sustainable construction practices, and to promote good practice, reduce wastage and overcome technical and financial constraints, including identifying sustainable supply routes and seeking to reduce delivery distances." London Plan Policy 4A.31 requires the adoption of the highest environmental standards although explicit reference to the protection of communities from the adverse effects of mineral working is absent.
26	Residents living close to mineral workings may be exposed to a number of environmental effects. MPAs must take particular care in respect of any conditions they attach to a grant of permission for working in proximity to communities…Dialogue should take place between MPAs, EHAs, operators and other stakeholders, especially in the local community, to determine appropriate mitigating measures, where these are feasible and would, if applied, allow the development to proceed.										

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27	The programme of work and/or the location of plant within the mineral working should take account of the proximity to occupied properties, as well as legitimate operational considerations. A programme of work should be agreed which takes account, as far as is practicable, of the potential impacts on the local community over the expected duration of operations.										
28	In such cases, MPAs should consider the need to require adequate separation distances. MPAs should require a distance that is effective but reasonable, taking into account: • the nature of the mineral extraction activity (including its duration); • the need to avoid undue sterilisation of mineral resources, location and topography; • the characteristics of the various environmental effects likely to arise; and the various amelioration measures that can be applied. Working in proximity to residential property may be necessary where there are clear, specific achievable objectives such as the removal of instability and preparing land for subsequent development. Such working should be for a limited and specified period, without scope for extension.										
29	In these circumstances, the MPA should consider both the need for long-term planning to avoid unnecessary sterilisation of resources, and how the combined impacts at individual sites and the cumulative impacts of further working of the mineral in a particular area can be reconciled with the need to protect localities and communities from unacceptable consequences of that working (e.g. by the number and timing of permissions, the phasing of workings and restoration, and the attachment of conditions to mitigate impacts).										
30	Meanwhile the First Secretary of State looks to all LPAs and to mineral operators to follow the policies it sets out. They should ensure that the environmental impacts of mineral workings are minimised and controlled, and foster good community relations between mineral developers and operators and those living close to mineral workings.										
	MPS2: Annex 1: Dust										
1.1	In formulating plans for mineral extraction or related activity and appraising mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused. The Government looks to the minerals industry to keep dust emissions at a level that reflects high environmental standards and to work for continuous improvement based on best available techniques (BAT).										The requirement to consider all the effects of mineral operations on the surrounding environment and communities is not included in the East Midlands RS Policy 37. However, Policy 37 requires impacts on habitats to be identified and mitigated. Paragraph 3.197 of the North East RS states that, “extraction, processing and transport should protect the environment and local amenity”. However, this objective has not been directly translated to policy. Paragraph 10.64 of the South East Plan states, “mineral working and processing can have an adverse impact on the environment and local amenity and MDFs should include policies to manage impacts

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											such as noise and dust and encourage good site management and effective restoration." Although these requirements have not been translated into minerals policy. Supporting text of the draft South West RS refers broadly to environmental and amenity protection associated with mineral extraction. West Midlands Policy M1 refers to the need to balance community, social, environmental and economic interests consistent with sustainable development. However, dust emissions are not referred to. London Plan Policy 4A.31 supports the development of aggregate recycling facilities and measures to reduce noise, dust and visual intrusion for these facilities.
1.4	Planning conditions on dust should not duplicate controls placed on the developer under the relevant pollution control regime										
1.5	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action, and MPAs should take due account of this in their decisions on individual applications. MPAs and operators should liaise with the relevant pollution control bodies (i.e. the Environment Agency and Local Authority (LA) Environmental Health Departments) in considering and making decisions on individual applications.										
1.6	The key planning principle is that dust emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should include appropriate proposals for the control and/or mitigation of dust emissions. Those making development proposals should carry out an appropriate dust assessment study (see Appendix 1C), and MPAs should consider the results of such a study to: • establish baseline conditions of the existing dust climate around the site of the proposed operations; • identify site activities that could lead to dust emission without mitigation; • identify site parameters which may increase potential impacts from dust; • recommend mitigation measures, including modification of site design; and • make proposals to monitor and report dust emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.										

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1.8	For the meantime, LAs should use the objective to assist in their longer-term planning.										
1.16	When PM10 impact is found to be significant in planning terms but, on balance, does not merit refusal of an application, procedures to monitor and control PM10 should be adopted.										
1.17	Because the activities identified are common to all mineral sites, the Government considers that the research recommendations should be extended to cover all types of mineral workings. In doing so, it recognises that the research was specific to opencast coal sites, which involve significantly more earthmoving than most other mineral workings. The materials excavated also vary with the mineral being worked. In addition, certain quarry processes are controlled under Part I of the EPA 1990 (see Secretary of State's Guidance – Quarry Processes PG3/8/96, DOE 1996) and now, by the PPC Regulations, and it would be for the pollution control system to control dust emissions from these. These factors need to be incorporated into the assessment of potential impact from PM10.										
1.18	The potential impacts of opencast and other mineral activities on particular sites should be highlighted at the scoping stage of a planning application (see Appendix 1C). This should identify any special requirements for the environmental impact assessment (EIA). The likely number and frequency of predicted exceedences of the AQOs, together with the proximity of operations to residential property and other sensitive uses should constitute a major part of the EIA and the weight this should be given in balancing the benefits of the site against potential impacts. The Arup research (see paragraph 1.2) defined 'remote' as more than 1000m from any residential property or sensitive use (see Table 1A2 in Appendix 1A). The Newcastle research also identifies 1000m as an adequate cut-off point for considering whether additional measures to control PM10 should apply. In deciding a cut-off point for individual proposals, MPAs should also consider whether the topography, the nature of the landscape, the respective location of the site and the nearest residential property or other sensitive use in relation to the prevailing wind direction and visibility may justify the distance being tailored to local circumstances, and hence whether a greater or lesser distance may be justified.										
1.19	If within a site the actual source of emission (e.g. the haul roads, crushers, stockpiles etc.) is within 1000m of any residential property or other sensitive use, then a further assessment should examine the likely impacts and the weight they should be given in the decision making process.										
1.21	Previously-measured data should be used in the first instance. Where relevant data is not available, site-related monitoring may occasionally need to be undertaken. The length of monitoring period, the methodology, the number of observations and different weather conditions should be carefully considered (see paragraph 1.9: detailed guidance on monitoring is provided in the LA's Technical Guidance on Review and Assessment (LAQM.TG(03)).										
1.22	MPAs should set out in their local or minerals development documents (or in their mineral plans where these are still in preparation) their policies on dust from surface mineral operations. Plans and policies should contain guidance on those considerations related to dust emissions and control that will be taken into account in assessing planning applications, whilst recognising the range of control and mitigation measures available, including those under Part I of the EPA 1990. They should outline the criteria against which they will assess										

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	the environmental acceptability of the expected dust emissions from a proposed surface mineral operation or review the conditions on existing planning permissions. Other mineral policies relevant to the general mitigation of environmental effects and good practices are also likely to be relevant to the control and mitigation of dust including those relating to separation distances, landscaping and screening.										
1.23	When considering applications for new mineral development or reviewing conditions on existing permissions, MPAs should have regard to the environmental acceptability of the likely dust emissions, including the cumulative impact at residential properties and on other sensitive uses. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development, together with proposals for appropriate control or mitigation.										
1.24	The control and mitigation of dust (as with other environmental impacts) should be discussed between the mineral operator and the MPA and the LA Environmental Health Department before an application is submitted. This will ensure that all parties are fully aware of all the issues and avoid delays in processing the application.										
1.25	MPAs and mineral operators should ensure appropriate consultations and effective liaison with all stakeholders, including statutory consultees and the local communities potentially affected by dust emissions. In particular, they should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned, as the regulator for quarry processes under the EPA 1990.										
1.26	MPAs should assess the findings from a dust assessment study carried out by the applicant (see Appendix 1C) when determining planning applications or when considering conditions to attach to planning permissions. Pre-planning discussions should have addressed the principal matters relating to the design and layout of the site and these should be reflected in the plans and details of workings.										
1.27	MPAs should consult the EHO for the area on the effects of dust emissions and the adequacy of proposed control and mitigation measures. Where the effects of dust emissions cannot be adequately controlled or mitigated, permission should be refused. MPAs should confirm the residential properties and other sensitive uses that might be affected and the effects of the proposals on them. MPAs should consider the need for, timing, length and frequency of temporary, dusty activities that are outside normal operations, but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.										
1.28	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way as to minimise dust emissions at the source and thereby to control them to acceptable levels. Planning conditions should not duplicate or conflict with any requirements imposed on quarry processes under Part I of the EPA 1990. MPAs should seek to identify the most appropriate control measures to address specific potential dust problems, and attach planning conditions to consents which are precise and unambiguous. The wording of the condition should make it clear as to when and where the control, or mitigation of dust, is necessary. Conditions should be worded in such a way that contraventions are easy to identify and enforcement action can be readily undertaken if necessary.										
1.30	Planning conditions that seek to mitigate dust through the use of water bowsers or sprays are										

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	frequently used by LAs, especially with regard to haul roads. Wherever possible, they should be specific about where and when water bowsers or sprays should be used. The condition could also specify that a chemical dust suppressant or a wetting agent be added to improve dust control. These sorts of condition require liaison with the relevant statutory consultee, in this case the Environment Agency.										
1.37	The Government looks to the minerals industries to keep dust emissions at a level that reflects the highest environmental standards, to work for continuous improvement based on BATs and to reflect the principles set out in this Annex in framing proposals for new development and in reviews of conditions. It expects MPAs to have regard to the principles of this Annex in considering the impacts of dust on the environment and the local community in the Minerals Local Plan (and in future local and minerals development frameworks), and in determining applications and reviewing conditions on existing permissions.										
	MPS2: Annex 2: Noise										
2.1	In formulating plans for mineral extraction or related activity and designing mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused.										The requirement to consider all the effects of mineral operations on the surrounding environment and communities is not included in the East Midlands RS Policy 37. However, Policy 37 does require impacts on habitats to be identified and mitigated. Paragraph 3.197 of the North East RS states that, “extraction, processing and transport should protect the environment and local amenity”. However, this objective has not been directly translated to policy. Paragraph 10.64 of the South East Plan states, “mineral working and processing can have an adverse impact on the environment and local amenity and MDFs should include policies to manage impacts such as noise and dust and encourage good site management and effective restoration.” Although these requirements have not been translated into minerals policy. Supporting text of the draft South West RS refers broadly to environmental and amenity protection associated with mineral extraction. West Midlands Policy M1 refers to the need to balance community, social, environmental and economic interests consistent with sustainable development.

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											However, dust emissions are not referred to. London Plan Policy 4A.31 supports the development of aggregate recycling facilities and measures to reduce noise, dust and visual intrusion for these facilities. However, the explicit need to control noise emissions for all minerals infrastructure is absent.
2.2	The Government looks to the minerals industry to keep noise emissions to a level that reflects the highest environmental standards and to work for continuous improvement. Its policy is to secure reduced noise emissions in both urban and non-urban areas and at noise-sensitive areas and properties…MPAs and others concerned with mineral development should have regard to the national noise strategy, on which the Department for the Environment, Food and Rural Affairs (Defra) consulted in 2001. This aims to map the main sources and areas of noise in order to identify tranquil areas that are to form a national resource, to comply with EC Directive (2002/49/EC) Assessment and Management of Environmental Noise.										
2.3	Most noise from mineral operations is created by equipment used for extraction and processing. MPAs and mineral operators should have regard to EC Directives 98/37/EC ('The Machinery Safety Directive') and 86/662/EC (Limitation of Noise Emitted by Hydraulic Excavators, Rope-operated Excavators, Dozers, Loaders and Excavator-loaders), which seek to reduce noise emissions from mobile plant and dump trucks. These do not apply to plant with a power rating in excess of 500kW or to a fixed plant. A proposed Directive (Noise Emission in the Environment for Equipment for Use Out of Doors), which is likely to come into force in 2005, indicates a further reduction in noise emissions for a range of tracked and wheeled plant. MPAs should be aware of the need to take account of this Directive when considering new applications and reviewing existing permissions after its implementation date. The Government will consider the need for appropriate supplementary guidance on this in due course.										
2.4	Planning conditions on noise should not duplicate controls placed on the developer under the relevant pollution control regime										
2.6	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action and except that MPAs will take due account of this in their decisions on individual applications.										
2.7	The key planning principle is that noise emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should, therefore include appropriate proposals for the control or mitigation of noise emissions. Those making development proposals and planning authorities considering such proposals should, therefore: consider the main characteristics of the production process and its environs, including the location of noise-sensitive properties; make and consider proposals to minimise, mitigate or remove noise emissions at the source using best available techniques (BAT) in accordance with the European Commission's BAT Reference Documents, taking account of the control of some quarry										

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	processes under the PPC Regulations; assess the existing noise climate around the site of the proposed operations, including background noise levels at nearby noise-sensitive properties; estimate the likely future noise from the development and its impact on the neighbourhood of the proposed operations; monitor noise emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.										
2.9	Emissions assessments should identify all sources of noise and, for each source, consider the proposed operating locations, procedures, schedules and duration of work for the life of the operation. They should consider what emissions are likely to arise and indicate how and where efforts have been made to control, mitigate or remove these at source. The level and character of the existing noise environment and the location of noise-sensitive properties will enable the necessary noise level goals to be incorporated in the design of proposed operations. Monitoring is required to compare changes in noise level and character caused by the operation to the design goals and to manage them in order to achieve those goals. There must be effective liaison with the affected community, and complaints should be dealt with promptly…										
2.10	MPAs should set out in their local development documents, policies on noise from surface mineral operations. They should outline the criteria against which they will assess the environmental acceptability of the expected noise emissions from a proposed surface mineral operation, or in reviewing the conditions on existing planning permissions. They should set out the noise limits they will apply in principle and any flexibility entailed in their application. The minerals (or successor) plan should also indicate the extent of technical information required in support of an application.										
2.11	In identifying areas of search and/or proposed sites for mineral working, MPAs should take account of any information on the existing local noise climate, particularly in areas of tranquillity that should be preserved as part of the national resource. For existing mineral operations, whether or not currently subject to conditions relating to noise, MPAs should consider whether the introduction of buffer zones to separate the mineral operation from existing and possible future noise-sensitive development could be helpful.										
2.12	When considering applications for new development or reviewing conditions on existing planning permissions, MPAs should have regard to the environmental acceptability of the likely noise emissions, including the cumulative impact at noise-sensitive properties. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development together with proposals for appropriate control or mitigation.										
2.13	Discussions on the issues relating to noise (and other environmental impacts) should take place between the mineral operator and the MPA and the local authority (LA) environmental health department before an application is submitted. Developers should also consult the Environment Agency or the LA as the regulator under the PPC Regulations.										
2.14	MPAs should ensure that operators are aware of the need for and provide all the required technical information. They should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned alongside their own expert advisers. MPAs and operators should ensure that there are										

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	appropriate consultations and effective liaison with the community likely to be affected by noise emissions.										
2.15	Where an EIA is required (DETR Circular 02/99 Environmental Impact Assessment), it should identify the actual working noise emissions from all equipment to be used on site, having regard to established good practice. It should establish the threshold at which significant effects from noise emissions will be likely in or near environmentally-sensitive locations, and demonstrate that emissions can be successfully maintained below this threshold. Sensitive locations include sites carrying national and international environmental designations. The significance of effects from noise should be considered in the context of existing development. The additional impacts of site-attributable noise emissions at noise-sensitive properties should be established.										
2.16	When considering applications, MPAs should ensure that operators have provided the required technical information and considered all reasonable options to minimise noise at source. In the light of the existing noise climate of the locality, they should consider the cumulative effects of noise emissions. MPAs should consult the EHO, as the pollution control regulator for the area, and other relevant stakeholders (e.g. English Nature for sites designated for nature conservation value) on the effects of noise emissions, and the adequacy of proposed control or mitigation measures. Where the effects of noise emissions cannot be adequately controlled or mitigated, permission should be refused.										
2.17	When considering granting permission, MPAs should establish what noise-reduction practices will be used and what their effects will be. They should identify all noise-sensitive properties that might be affected and what the effects of the proposals will be on them. MPAs should consider the need for, timing, length and frequency of temporary noisy activities that are outside normal operations but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.										
2.18	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way that noise emissions are minimised at the source and thereby controlled to acceptable levels.										
2.19	Planning conditions should be used to apply absolute controls on noise emissions with limits normally being set at particular noise-sensitive properties (the terms used are defined in Appendix 2A). This enables the effect of noise to be related most directly to its impact on local people. In some circumstances, however, it might be more appropriate to set the limits at the site boundary or some other point. Subject to a maximum of 55dB(A)LAeq,1h (free field), MPAs should aim to establish a noise limit at the noise-sensitive property that does not exceed the background level by more than 10dB(A). It is recognised, however, that this will in many circumstances, be difficult to achieve without imposing unreasonable burdens on the mineral operator. In such cases, the limit set should be as near that level as practicable during normal working hours (0700-1900) and should not exceed 55dB(A) LAeq,1h (free field). Evening (1900-2200) limits should not exceed background level by more than 10dB(A) and night-time limits should not exceed 42dB(A) LAeq,1h (free field) at noise-sensitive dwellings. Where tonal noise contributes significantly to the total site noise, it may be appropriate to set specific limits for this element. Peak or impulsive noise, which may include some reversing bleepers, may also require separate limits that are independent of background noise — e.g.										

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	Lmax in specific octave or third-octave bands — and should not be allowed to occur regularly at night.										
2.20	Increased temporary daytime noise limits of up to 70dB(A) LAeq1h (free field) for periods of up to 8 weeks in a year at specified noise-sensitive properties should be considered to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this will bring longer-term environmental benefits to the site or its environs. Where work is likely to take longer than 8 weeks, a lower limit over a longer period should be considered. In some wholly exceptional cases, where there is no viable alternative, a higher limit for a very limited period may be appropriate in order to attain the environmental benefits. Within this framework, the 70 dB(A) LAeq1h (free field) limit referred to above should be regarded as the normal maximum. LAs should look to operators to make every effort to deliver temporary works at a lower level of noise impact. Operators should seek ways of minimising noisier activities and the noise emissions from them when designing the layout and sequencing of temporary operations, and should liaise with local residents prior to such operations taking place.										
2.21	Conditions on planning permissions should identify the noise-sensitive properties at which the noise limits are set, including the relative sensitivity to noise, which may result in different limits for different types of property, and establish a scheme of monitoring that identifies how, where and when noise is to be measured, who should be responsible and how the results will be assessed and used. Alternatively, a condition should be attached requiring a scheme of compliance noise monitoring to be submitted to and approved by the MPA. Where necessary, the MPA should seek to use Agreements under Section 106 of the Town and Country Planning Act 1990, as amended, to ensure access to noise-sensitive sites for monitoring purposes. Conditions should also be used to secure effective procedures for dealing with complaints. Planning obligations can help to ensure continued effective liaison with the local community and others affected by noise emissions…										
2.22	Monitoring, in accordance with an agreed scheme, should normally be carried out in the free field at noise-sensitive properties and should pick up all noise from static and mobile sources that could affect the property. Where monitoring has to be conducted near the façade of a building, the microphone should be located 1m from the façade at a height of 1.2–1.5m above the ground and a 3dB façade reflection correction should be applied. If monitoring has to be other than at the noise-sensitive property, the noise limit must be converted into equivalent noise limits at the monitoring points using the noise-prediction technique in Part 1 of BS5228 Noise and Vibration Control on Construction and Open Sites (1997).										
2.23	Equipment used for monitoring should correspond to that specified in BS-EN 61672-1 Electroacoustics, Sound Level Meters, Specifications (2003), capable of measurement in LAeq,1h and be calibrated before and after use. Where it is not possible by use of the pause button to exclude extraneous noise not directly attributable to the operation being monitored, an appropriate allowance should be made. Guidance on this is contained in BS4142 Method of Rating Industrial Noise Affecting Mixed Residential and Industrial Areas (1997).										
2.24	Monitoring should be undertaken during normal production working hours and should avoid meal times and periods of plant maintenance or breakdown. Measurements should ideally be taken in calm conditions or where there is a component of wind blowing from the site towards the measurement location. However, at many sites, such conditions may be rare. BS4142 suggests that measurement should be avoided in conditions of wind speeds greater than										

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	5m/sec, rain and temperatures less than 3°C. BS4142 also requires that a record be kept of weather conditions prevailing during all measurements. Where noise monitoring is undertaken when weather conditions are not ideal and noise levels appear to be of concern, the impact of weather conditions on ambient noise should be considered as well as noise propagation from the site.										
2.25	The detailed requirements for monitoring (location, period and frequency) should be decided on a site-specific basis as part of the monitoring scheme, taking account of any monitoring required under the terms of any authorisation for quarry processes under the PPC Regulations. Unnecessarily onerous requirements should be avoided. Conditions should require operators to report periodically to the MPA on the results of monitoring and to inform it as soon as possible if there is evidence of the limits being breached, including an explanation and a statement of action to remedy it. MPAs and/or EHOs should carry out periodic checks of permitted sites in their areas, particularly if complaints are received, and inform the operator and complainants of the results. If monitoring demonstrates that noise limits continue to be exceeded, MPAs should consider what enforcement action would be appropriate.										
2.26	The Government looks to the minerals industries to keep noise emissions at or below the levels set out in this Annex, and to use BAT to reduce the impact of noise from their operations. It expects MPAs to have regard to the principles of this Annex in considering the impacts of noise on the environment and the local community in the minerals and waste development plans, the development documents that will succeed these and in determining applications and reviewing conditions on existing permissions…										

MPG3: COAL MINING AND COLLIERY SPOIL DISPOSAL

Paragraph	MPG3 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
8	National Land Use Policy Considerations In applying the principles of sustainable development to coal extraction, whether opencast or deep-mine, and to colliery spoil disposal, the Government believes there should normally be a presumption against development unless the proposal would meet the following tests: i. Is the proposal environmentally acceptable, or can it be made so by planning conditions or obligations? ii. If not, does it provide local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission? iii. In National Parks and AONBs, proposals must also meet the additional tests set out in paragraphs 28 and 29 below. iv. Proposals within or likely to affect and National Nature Reserves (NNRs) must meet the additional tests set out in paragraphs 30 and 31. v. Proposals within the Green Belt must meet the additional test in paragraph 36 below. MPAs should ensure that this general approach is incorporated into their development plan policies as soon as possible. The Government recognises that the costs and benefits of an opencast proposal can best be assessed by the communities and local authorities who know the area best and are most directly affected. Accordingly the Government takes the view that, subject always to local plan procedures, normal rights of appeal and the provisions of this guidance, MPAs' assessments of the environmental acceptability or otherwise of individual proposals should normally prevail.										Supporting text in the East Midlands RS minerals chapter confirms that the criteria set out in MPG3 should be applied by MPAs in the Region. Although this has not been translated to Policy 37. The significance to the South East is debatable but the Plan (paragraph 10.67) states, "There are other mineral resources in the region which have also been assessed but none of these is considered to be of regional significance in the period to 2016. For example, with the closure of the Kent coalfield, energy minerals are insignificant although hydrocarbons are exploited in modest quantities in West Sussex, Surrey and Hampshire." Coal mining is dealt with in depth in the supporting text of the West Midlands RS
11	Formulation of Policies and Plans Within the overall framework set out in paragraph 8 above, policies and proposals in the development plan should be consistent with national policies and strategic and regional planning guidance.										
12	Policies and proposals should take into account the principal impacts of coal working and spoil disposal, both separately and together, such as visual intrusion, water pollution, air pollution, noise, dust and traffic and the level of activity that a particular locality and its community can reasonably be expected to tolerate over a particular period, as well as the potential benefits such as job opportunities and the scope for landscape and amenity improvements through working and subsequent restoration. Equally, other development plan policies should ensure that provision for other development does not unnecessarily sterilise coal resources, nor allow development to encroach on existing mineral operations and thus increase the level of environmental impact to an unacceptable level.										East Midlands RS Policy 37 supporting text confirms that proposals to extend or develop new sites for deep mining or opencast will be required to consider the environmental impact of the proposal on local communities. However, this requirement has not been translated to policy.
13	The Coal Authority and MPAs should liaise closely at an early stage of the development and mineral planning process. The Coal Authority should also be approached by MPAs in the consideration of individual planning applications…Coal operators should engage in full and open dialogue with MPAs and provide them with information on the extent of their known reserves and forward plans. MPAs should provide operators with information on the planning and environmental constraints within the authority area…For existing deep and drift mines consented under the Town and Country Planning (General Permitted Development) Order 1995 ("the GPDO") operators should also supply information on their forward mining plans in										

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	accordance with the DTI Code of Practice.										
14	Scope for Environmental Improvements Policies should give priority to proposals which will bring about environmental improvements.										East Midlands RS Policy 37 supporting text recognises that opencast mining can be used as a way of re-claiming and regenerating former deep mine sites and supporting text recognises the opportunities for enhancing the environment. The North East RS Policy 44 Opencast Coal states that MPAs should adopt a presumption against opencast coal extraction unless the proposal can provide local or community benefits and policy 42 requires high quality restoration. North West RS Policy EM7 requires sensitive environmental restoration. Supporting text in the South West RS refers to aftercare and restoration.
15	Safeguarding of existing businesses and opportunities for future investment Policies should be explicit that where there is material evidence that coal extraction and related development would have an adverse effect on efforts to attract or retain investment in an area, this is a material consideration which should be taken into account in deciding planning applications.										
16	Policies should make provision for proposals where extraction of coal from a site would facilitate the efficient and economic working of other mineral deposits on that site in an environmentally acceptable way…opencast sites provide one of the few viable sources of fireclay and every opportunity to produce it from a proposed site should be examined provided that the site can be properly restored and the overall proposal meets the tests in paragraph 8.										
17	Comprehensive working Where a forward programme of potential sites has been agreed in line with paragraph 13, policies should provide for proposals which would facilitate the comprehensive working of the coal deposits in a locality, subject to planning and environmental constraints and the acceptability of individual proposals in accordance with paragraph 8.										
18	Cumulative Impact Some areas have been subjected to successive opencast developments over a number of years. Policies should make clear that, where appropriate, the cumulative impact of a proposed opencast development on the community and the environment will be taken into account.										

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19	Extension to sites Developers should provide the MPA with as much information as they have available on the extent of the resources in a proposed site, and the way in which they propose to work them, before or at the time a planning application is made to avoid subsequent unplanned applications for site extensions in area or depth… Policies should therefore make clear that any proposal to extend an opencast site, in area or depth, will have to meet the criteria in paragraph 8. Where the proposal is likely to have significant effects on the environment an Environmental Impact Assessment should be required.										
20	Repeat applications Section 70A of the 1990 Act (as inserted by section 17 of the 1991 Act) provides that an MPA may decline to determine a planning application if it is made within two years of the Secretary of State refusing a similar application, either on call-in or appeal, and there has been no material change in circumstances since that decision. In addition there should be a general presumption against approving applications for development of a site, or extensions to an existing site, where a similar application has been refused previously unless there has been a material change in circumstances since that decision.										
21	Commencement and completion of development Policies should make clear that, if planning permission is granted, conditions will be imposed specifying the date by which development must be begun (or the planning permission will lapse) and dates for the completion of coal extraction, restoration and aftercare.										
22	Sterilisation In principle, it is desirable to secure coal extraction prior to new permanent development above coal reserves. Policies should therefore take into account the benefit of avoiding sterilisation of coal reserves by other forms of development, within a reasonable timescale and in an environmentally acceptable way, provided the proposal can meet the tests in paragraph 8 above.										
23	Deep mines and drift mines In general, proposals for drift mines raise similar issues to those for deep mines. The impact is largely determined by the size, location and duration of the operations. Policies should deal with the principal impacts arising from ancillary surface development at underground mines, for example: visual intrusion, noise, dust, traffic, the location and design of buildings and storage areas, coal washing and lagoons, and site restoration; and with the potential effects of subsidence, including the potential hazard of old mine workings, the treatment and pumping of underground water, monitoring and preventive measures for potential gas emissions; and the method of disposal of colliery spoil.										
24	Colliery spoil ..continuity of production at existing deep and drift mines in part depends upon the availability of land for spoil disposal. Plans should therefore set out policies which make provision for this.										

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25	Policies should include consideration of viable alternatives to local tipping where that is precluded by environmental constraints or where there is a reasonable expectation that environmental gains will outweigh any increased costs, and should encourage use of the evaluative framework ("Procedural Manual Evaluative Framework: Assessment of Alternative Colliery Spoil Disposal Options" HMSO 1990).										
26	The coal industry should make every effort to keep spoil production to a minimum and to seek ways of reducing the environmental impact of its disposal, including flexibility in local arrangements for disposal; continued efforts to improve restoration techniques; and, by seeking opportunities for the recycling of spoil for use as secondary aggregates (see Annex A). It should supply current and projected spoil production figures to the MPA at an early stage so that a forward strategy on spoil disposal can be compiled for the whole area, and should cooperate in the discussion and preparation of forward programmes.										
27	Nationally designated and other sensitive areas Development plans should also contain policies, where relevant, for the protection of National Parks, AONBs, SSSIs, NNRs, ancient monuments, archaeological and other cultural interests, agricultural land and Green Belt. Advice on the national policies that apply is set out below.										
28	PPG7 - "The Countryside - Environmental Quality and Economic and Social Development" (February 1997) sets out in detail Government planning policies for all forms of development in National Parks and AONBs. The Government considers that major developments should not take place in these areas, and the New Forest and the Norfolk and Suffolk Broads, save in exceptional circumstances. Because of the serious impact that minerals developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all minerals development should be demonstrated to be in the public interest before being allowed to proceed.										
29	National Parks and AONBs Consideration of minerals applications in such areas should normally include an assessment of: i. the need for the development, in terms of national considerations of mineral supply; ii. the impact of permitting the development, or refusing it, on the local economy; iii. whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iv. any detrimental effect of the proposals on the environment and landscape and the extent to which that should be moderated; and iv. in the case of extensions to existing mines, the extent to which the proposal would achieve an enhancement to the local landscape.										
30	SSSIs and NNRs Mineral proposals within or likely to affect SSSIs should be the subject of the most rigorous										

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	examination. When considering such proposals planning authorities are required to consult EN on such proposals and should take account of the advice in PPG9 - "Nature Conservation".										
32	Other environmentally important areas Planning authorities may designate other environmentally significant areas in their development plans, such as special landscape areas, or areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not be as high as that to be given to the nationally designated areas referred to above.										
33	The historic environment …The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features. When determining applications for extraction, MPAs should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings.										
34	…The protection of the historic environment, whether individual listed buildings, conservation areas or the wider historic landscape will need to be taken fully into account both in the formulation of authorities' planning policies and in development control.										
35	Agricultural land The Government's policy, as set out in PPG7, is that within the principles of sustainable development, the best and most versatile agricultural land (defined as land in Grades 1, 2 and 3a) is a national resource for the future, and considerable weight should be attached to the protection of such land because of its special importance... …when considering the allocation of land for minerals development, and deciding any application for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects……where the best and most versatile agricultural land is involved the restoration and aftercare steps should enable the retention of its longer term potential as a high quality agricultural resource.										
36	Green Belt Proposals for coal extraction and spoil disposal may also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance 2: Green Belts (PPG2). Applications to extract coal or deposit spoil in the Green Belt should be tested against the highest environmental standards. If permission is granted, stringent conditions should be attached to ensure the site is well operated and restored to the highest standards.										
37	Mineral Local Plans and Part 2 of UDPs Structure Plans and Part 1 of UDPs should set out strategic policies. Mineral Local Plans and Part 2 of UDPs should carry forward those policies and set out clear criteria against which individual proposals will be assessed. These criteria should include consideration of: -										Policy 37 of the East Midlands RS does not explicitly state the need to assess and control these environmental factors. The North East of England RS Policy 42

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	• the effects on local amenity; landscape; features of archaeological, architectural, historic or natural interest; and, agriculture; • the effect on hydrology or hydrogeology; • the environmental impacts of transportation of minerals and waste; • the cumulative impact on communities in the locality of proposals; • the effect on efforts to attract or retain investment in the area; • any environmental improvements or other material planning benefits to the community likely to result from the proposals; • the employment and other economic effects of the proposals; • the avoidance of sterilisation of mineral resources; • the efficient and economic working of other mineral deposits in an environmentally acceptable way; • the avoidance of unplanned piecemeal working of deposits; and, • where development is acceptable in principle, the range of conditions likely to be needed to mitigate or control any potential adverse effects. MPAs may also wish to have regard to the Countryside Commissions' advice on landscape and countryside issues set out in their publication "Opencast coal mining: advice on landscape and countryside issues" (CCP434, 1993) and to English Heritage/Countryside Commission/English Nature's published guidance "Conservation Issues in Strategic Plans" and "Conservation Issues in Local Plans".										states that MWDFs, MDFs and LDFs should include criteria based policies against which individual proposals will be assessed. Supporting text in the South West RS refers to some of these factors.
38	Minerals Local Plans and Part 2 of UDPs should also indicate any areas where coal extraction and the disposal of colliery spoil may be acceptable in principle subject to development control criteria being met in any particular case, as well as those areas where working or disposal is unlikely to be acceptable or where coal resources are to be safeguarded for future working…										
39	Handling Specific Development Proposals Proposals for coal extraction and spoil disposal can give rise to considerable concern because of the potential environmental impact operations can have on a locality. Operators and MPAs should therefore have regard to the code of practice prepared jointly by the then County Planning Officers' Society and COALPRO ("Planning for Quality - A Code of Practice", September 1996).										
40	Before applications are submitted to the MPA for determination, and as early as possible, operators should explain fully the nature of their proposals, indicating the ways in which they intend to deal with the environmental factors that will arise…Technical issues such as drainage, access arrangements, working methods, pollution control, restoration, after-use and stability should also have been discussed with the appropriate bodies.										
41	There is a statutory duty to consult with and obtain approval from the Environment Agency with regard to the siting and condition of any spoil disposal to land.										
42	In all cases the MPA will need information about likely environmental effects as part of the material accompanying an application for planning permission. Operators should seek the MPA's views on the preparation of Environmental Statements (ES) appropriate to the scale of the proposal and the sensitivity of its location.										
43	Environmental Impact Assessment … Where proposals for mineral development are likely to have significant effects on the										

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	environment, applications will need to be subject to EIA under the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999 and an Environmental Statement (ES) prepared.										
44	…In any event, mineral applications in National Parks and AONBs should be subject to the most rigorous examination and EIA should always be required. Similar considerations apply to proposals which would affect SSSIs or other areas which have been designated nationally or internationally as requiring special consideration.										
45	Environmental duty In addition to any requirement for EIA, section 53 of the Coal Industry Act 1994 imposes an environmental duty on the coal industry. In formulating coal mining proposals requiring planning permission, operators are required to have regard to the desirability of the preservation of natural beauty, the conservation of flora and fauna and geological or physiographical features of special interest and the protection of sites, buildings, structures and objects of architectural, historic or archaeological interest; and, must formulate proposals for the adoption of measures to mitigate any adverse effect of the development on such matters. In considering coal mining proposals, MPAs must have regard to the extent to which the operator has complied with the duty.										
47	Post application consultations Following receipt of a planning application for coal extraction or spoil disposal, the MPA should undertake the consultations specified in the Town and Country Planning (General Development Procedure) Order 1995 ("the GDPO"). In addition, they should also consult MAFF where there is likely to be an agricultural afteruse. The Forestry Commission should be consulted where areas of forest are likely to be affected by the development or where forestry planting forms part of a reclamation scheme. The Countryside Commission should be invited to comment on any application which has a major impact on the landscape, Regional Parks, Country Parks, National Trails and Community Forests. MPAs should consider the likely effect on a National Nature Reserve, SSSI, or other area of ecological, geological or geomorphological importance, of any planning application at or in the vicinity of such a site, so as to decide whether or not to consult English Nature (EN). MPAs should bear in mind the possibility that certain developments may affect a site some distance away. Sites and Monuments Records (SMRs) should be consulted where proposals affect features of archaeological interest or the built heritage. SMRs will involve English Heritage as appropriate. English Heritage needs to be consulted directly on proposals which would affect Scheduled Monuments and grade I and II listed buildings.										
49	Consideration of applications MPAs will need to consider in detail the full range of social, community, economic and environmental issues that are relevant to the planning decision. For its part, the industry should demonstrate that it has addressed all potential adverse effects either by amending the proposals, or providing appropriate compensatory or mitigation measures when preparing planning applications. The industry should demonstrate that its proposals take all practicable steps to satisfy the environmental concerns on site operation and restoration. The objective must be to ensure that any adverse effects on local communities, environmental damage or loss of amenity caused by mineral working are kept to an acceptable level, and do not										

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	outweigh the benefits to the local community of proceeding with the development. Where material planning objections to a proposal outweigh any benefits to the local community then, as stated in paragraph 8(ii) above, planning permission should not normally be granted.										
50	Need and alternative sites or sources of supply Where the major argument advanced in support of an application to extract coal is that the need for the development outweighs the planning disadvantages inherent in it, the MPA should have regard to the possibility of meeting that need from alternative sites or sources of supply.										
51	Applicants should include a description of the main alternatives considered in their Environmental Statement.										
53	Consideration of impacts and conditions …In the meantime, the industry and MPAs should adopt the precautionary principle and ensure that proposals and developments do not result in unacceptable levels of airborne dust. Where planning permission is granted stringent conditions should be attached to control and monitor dust emissions. Further advice will be issued once the results of the research are known.										
54	… Meanwhile, and in any event, where planning permission for coal extraction or the disposal of colliery spoil is granted, the Secretary of State expects MPAs to impose planning conditions requiring the highest standards of operation, restoration and aftercare to ensure that any impacts on the environment or local amenity are minimised, and to ensure that compliance with those conditions is monitored and enforced. In that connection the industry can play its part by initiating annual independent environmental audits of operating sites and making the results freely available to the MPA, members of the public and other interested persons, either independently or as part of an individual company's accreditation under an environmental performance or monitoring system such as EMAS or ISO 14001…										
55	Planning Obligations … Where the environmental impacts of coal extraction or colliery spoil cannot be sufficiently mitigated, or controlled, by means of planning conditions alone, it may be appropriate for MPAs to seek planning obligations to ameliorate the harm or to secure relevant and legitimate local benefits which outweigh that harm, in line with paragraph 8 above. Community benefits, for instance, in the form of new community facilities or community trust funds may be proposed by the developer or suggested by the planning authority. However, any such benefits offered or sought should not be treated as material considerations unless they meet the tests set out in DOE Circular 1/97 - ie: i. they are necessary to make a proposal acceptable in land use planning terms; ii. they are relevant to planning; iii. they are directly related to the proposed development; iv. they are fairly and reasonably related in scale and kind to the proposed development; v. they are reasonable in all other respects.										

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56	Restoration and aftercare …Applications for extraction of coal or disposal of colliery spoil should include information which demonstrates that the site can be restored satisfactorily. The omission of such information is likely to delay determination of the application. If proposals for restoration are inadequate, unsatisfactory or impracticable, planning permission should not be granted. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.										
57	Proposals for restoration and aftercare of coal extraction and spoil disposal sites should form an important part of the information submitted with a planning application and in earlier informal discussions. This information should be sufficiently detailed for a realistic view to be taken of the after-use intended, including phasing of progressive restoration and the final landform and landscape intended. This should normally be agreed with the MPA in advance of planning permission being granted, after discussions with the district council, site operator, land owners, farming, local community and other relevant local interest groups (eg nature conservation)…										
58	Aftercare proposals should also take account of the need to manage on-site and off-site drainage, and any creation of water features, including any advice from the Environment Agency who should be consulted, particularly when preparing any restoration and aftercare scheme where it is intended to impound or create an impoundment of water or create or divert a river or stream.										
59	At the time planning permission is granted, both the principles and, as far as possible, the details of restoration should be agreed - although in some cases it may be sensible for some details to be agreed at a later stage. The intended after-use must also be decided when planning permission is granted, but in the case of longer term sites the detailed aftercare programme may more appropriately be settled in a scheme agreed subsequently. Further advice is given in MPG7.										
60	In the cases where agriculture is the intended after-use, it is essential that site working, restoration and after-use should be considered thoroughly at the outset, and in full consultation with MAFF, environmental and other interests as appropriate. In cases where forestry is the intended after-use, consultations on its appropriateness and on aftercare requirements should be with the Forestry Commission.										
64	However, where the operator can demonstrate to the satisfaction of the MPA that they are covered by an established and properly funded industry guarantee scheme, which would adequately finance a programme of restoration and aftercare in the case of default by the operator, the Government considers that a bond should not be necessary.										
65	… In all cases, operators should ensure that sufficient finance is available to enable them to meet fully restoration and aftercare conditions. Equally, MPAs should have regard at all times to the need to avoid imposing costs on coal operators that are larger or longer than strictly required to meet best standards. In those cases where security funding or bonds are required, the sums should be released progressively as restoration proceeds.										
66	Liaison Committees										

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	Should permission be granted, particularly for major developments, developers should aim to set up a liaison committee or advisory panel consisting of representatives of the developer, the contractor working the site, local authorities and members of the local community and other interested bodies (including EN where appropriate) to ensure that the local community has a full understanding of working practices and that the developer and contractor are fully aware of local community concerns…										
68	… Nevertheless, the Government expects MPAs to determine applications expeditiously….Applicants should aim to provide authorities with all the information that is needed to determine the application, including in all normal cases an appropriate Environmental Statement covering all relevant issues. If the authority needs further information, every effort should be made to ensure that requests for its provision are comprehensive at the outset.										
Annex B	Planning and Pollution Control B3. Planning conditions should not seek to control through planning measures matters that are the proper concern of the pollution control authority, except where planning interests can be clearly distinguished. However, the winning and working of minerals is an operation which continues over a number of years and the "development" is not complete until the site has been worked out and restored. The MPA will therefore be concerned with the totality of the impact of the development on amenity and other land uses, whether or not part of the development is subject to pollution control. B4. Where processes prescribed for control under Part I of the Environmental Protection Act 1990 form part of the application for planning permission for coal extraction or colliery spoil disposal, material planning considerations may include the potential loss of amenity caused by pollution, and the MPA will need to take them into account in determining whether planning permission should be granted. MPAs should, where appropriate, impose planning conditions on any permission minimising such impacts. Such conditions must relate to land use planning considerations and may include conditions regulating such matters as noise, dust, hours of working etc where these are necessary to protect local amenity or other land uses. However, planning conditions should not duplicate pollution controls on prescribed processes. It is essential therefore that MPAs should consult the relevant pollution control authority at an early stage about the extent to which matters should be addressed through planning or pollution control mechanisms, and to provide the pollution control authority with an opportunity to comment on pollution control in respect of the development as a whole.										

MPG5: STABILITY IN SURFACE MINERAL WORKINGS AND TIPS

Paragraph	MPG5 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
	This guidance advises that: - mineral planning authorities need to consider stability in relation to surface mineral workings and tips; - local planning authorities need to consider stability in relation to development in, on or near abandoned surface mineral workings and tips; and that - policies should outline the consideration which will be given to stability issues in considering mineral development and other development in, on or near to mineral workings and tips; - consideration of apparently unrelated issues may require consideration of the potential effects on the stability of excavated or tipped slopes; - where appropriate, planning applications and restoration/landscaping schemes should be accompanied by a design report prepared by a competent person which demonstrates that the perimeter slopes and any internal slopes remaining after restoration will remain stable.										
16	Development Plans When preparing minerals local plans, MPAs will need to consider the extent to which specific policies should be included to cover tip- and quarry-slope stability or whether this issue should be covered by supplementary guidance. This consideration should take account of the factors which might trigger particular concerns about stability, such as proximity to built development or infrastructure; knowledge of previous instability problems; the criteria to be used to define stand-off distances or clearances between quarry slopes or tips and the site boundary or third-party structures; and the requirement for final slopes and restoration to be compatible with stable slopes…										
17	In addition, policies in district-wide local plans should seek to ensure that land use is appropriate when considering development above or below abandoned quarry slopes and on or near to disused tips or back-filled workings. In particular, attention should be given to the possible need for stand-offs to protect neighbouring land or structures and/or for slope stabilisation measures. Where development is being proposed on back-filled workings, consideration will be needed of both the planning and Building Regulations requirements in respect of stability, as well as of the possibility of contamination arising imported waste… … Any development planning briefs prepared for such sites should ensure that the issues of slope stability, differential settlement of quarry backfill and the likelihood of contamination and migration of contamination from the site are properly addressed.										
20	Applications for Mineral Workings and Review of Old Mineral Permissions Landscaping and restoration proposals should be consistent with the production and maintenance of safe and stable slopes…										
22	While the internal working slopes of quarries and tips are principally matters of concern to the operator and the HSE rather than for the MPA, the final perimeter slopes and restoration proposals have land-use implications, which need to be considered by the MPA. In order to do so it will need to be provided by the operator with an assessment and design of perimeter slopes and any internal slopes remaining after restoration to enable any potential for adverse effects due to instability to be minimised…										

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24	… Applications for new workings should be accompanied by an appraisal of slope stability issues based on existing information, which aims to: • identify any potential hazard to people and property and assess its significance; • establish the basis for reserve calculation; • identify any features which could adversely affect the stability of the working to enable basic quarry design to be undertaken.										
25	Where built development is the proposed after-use for back-filled workings, MPAs should impose conditions to secure appropriate deposition and compaction to allow that development to proceed without the need for further ground treatment.										
26	Applications for Development on or Near Abandoned Tips or Quarries Appraisals and assessments of excavated and tip slope stability should be carried out for the operator by a competent person, as defined in the Quarries Regulations 1999. The MPA is entitled to rely on such appraisals and assessments in considering the impact of stability on land use. The MPA should ensure that any changes to the applicants proposed method of working, which may be desirable for other reasons, are appraised and assessed by that competent person…										
27	Conclusions Where development is proposed in or near the slopes of abandoned quarries or tips, local planning authorities should seek information from applicants in respect of stability reports prepared by a competent person. The layout of such development will need to be considered in relation to the stability of nearby slopes and the necessity for and feasibility of any necessary stabilisation measures. Development on back-filled workings and tips will also need to consider the potential effects of differential consolidation of the fill/tip material as well as any potential effects on slope stability. The detailed resolution in terms of specific foundation measures or ground treatment is, however, a matter for the building regulations.										

MPG7: THE RECLAMATION OF MINERAL WORKINGS

Paragraph	MPG7 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
8	Reclamation Policies in Development Plans Structure plans and Part 1 of UDPs should express in general terms the MPAs strategy for mineral working and related development taking into account national and regional policies. They should provide policy guidance to applicants including in general terms the need for restoration and aftercare of mineral workings.										The East of England Plan Minerals Policy (Policy M1) does not include details pertaining to restoration of mineral sites. However, the overarching environmental protection and enhancement policies of the Plan (ENV1 and ENV3) promote the conservation, enhancement, restoration and re-establishment of habitats and species. Both the supporting text and Policy 37 of the East Midlands RS refer to the restoration of former mineral extraction sites. The North East RS Policy 42 refers to the delivery of high quality restoration and aftercare and appropriate beneficial after uses. Paragraph 10.76 of the South East Plan refers to restoration and states, "Whatever the after-use, it will be essential that it is established to a high standard with appropriate aftercare and management." Although this requirement has not been translated into minerals policy. Supporting text of the Draft South West RS refers to reclamation
9	Minerals local plans (or minerals and waste local plans), district-wide local plans of the new unitary authorities (where authorised to include minerals and waste policies), and Part II of the UDP's provide an opportunity for local authorities to develop in detail the policies and plans for their area. They should provide policy guidance to applicants on appropriate uses of land within the plan areas. This should assist in the early identification of the most appropriate after-use for a mineral site…										
10	When drawing up their plans, local authorities should have regard to Government policies on land use.										
13	National Land Use Policies and Reclamation of Mineral Sites Agriculture: … Where minerals underlie the best and most versatile agricultural land it is particularly important that restoration and aftercare preserve the long-term potential of the land as a national, high quality, agricultural resource.										

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14	Government policy seeks also to encourage the diversification of the rural economy where this will not result in the significant loss of high quality agricultural land. Therefore whilst agriculture remains the most appropriate after-use for many mineral sites, other uses such as forestry and some forms of amenity including nature conservation (e.g. heathland or unimproved grassland), should also be considered on land which was originally in agricultural use. Where these alternatives are proposed on the best and most versatile agricultural land, the methods used in restoration and aftercare should enable the land to retain its longer-term capability to be farmed to its land classification potential, thus remaining a high quality agricultural resource for the future…										
15	Reclamation to non-agricultural uses does not mean that there can be any lessened commitment to high standards in the reclamation and recycling of land taken for mineral working, and they therefore should not be chosen because they are perceived as `easier options'. They require equal commitment by mineral operators, mineral planning authorities and any other parties involved to achieve high standards of implementation.										
18	Forestry … Therefore, in the areas of the "Community Forests", the National Forest, and in preferred areas as identified in IFSs, structure plans and minerals local plans should give consideration to inclusion of policies for the after-use of mineral sites to forestry and amenity woodland.										
20	Landfilling of Surface Mineral Workings Unitary planning authorities should include waste policies in their unitary development plans.										
21	Waste local plans therefore need to take account of minerals local plans.										
22	Imposing Reclamation Conditions for New Permissions General Considerations In granting planning permission for mineral working, MPAs should always carefully consider the applicant's proposals for reclamation of the site, how and whether the proposals are likely to achieve the intended results and, therefore, how requirements to ensure satisfactory reclamation can be incorporated into appropriate planning conditions. It is equally important that the applicant should thoroughly understand, and make financial provision for, the responsibilities he will be taking on under the reclamation conditions likely to be imposed on a planning permission.										
24	Planning conditions for reclamation should normally be framed with the intended after-use in mind. However, separate planning permission is likely to be required for any after-use except: i. agriculture and forestry (excluded from the definition of development in section 55 of the 1990 Act), ii. uses which are included in the Town and Country Planning (General Permitted Development) Order 1995, and iii. nature conservation and informal recreation which do not involve substantial public use. Any application for development on a current or disused mineral working site which would conflict with or prejudice compliance with a restoration and aftercare condition imposed in										

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	respect of the mineral working will be dealt with by the MPA.										
25	Pre-Application Considerations The drawing up of practical proposals for site reclamation will require a careful site investigation by the potential mineral operator prior to the submission of an application. The outcome of the investigation should be reflected in the documentation submitted with the application.										
26	It is in the applicants interest to discuss working and reclamation proposals and possible planning conditions with the MPA, prior to formal submission of an application. These discussions should also involve the statutory consultees, the landowner, tenant and any other person with a relevant interest.										
27	To demonstrate that a site can be reclaimed to an acceptable standard and after-use, the applicant is advised to prepare, at the outset, a working plan which includes restoration proposals and is based upon findings from the site investigation. This should be in sufficient detail for the MPA and any statutory consultees to form a judgement as to its feasibility.										
28	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, they will need to be subject to an assessment of those effects under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988.										
29	Whether or not a formal environmental assessment is required, operators are advised to follow the general methodologies for the assessment of environmental effects in all applications. These provide the applicant with the opportunity to demonstrate, and the MPA to evaluate, for example, the practicality of the proposed after-use(s). Where there is doubt as to the practicality of proposals, the operator should discuss alternative solutions using the available information…										
30	Submission and Determination of Planning Applications Having received an application for planning permission, it is necessary for the MPA to notify or consult other interested parties before reaching a decision…MPAs are not required to consult external experts for advice on amenity use; but they may do so in appropriate cases.										
31	Policies and guidance in Minerals Local Plans, Part II of UDPs and other local plans should assist in these considerations.										
32	MPAs should thus have regard to the practicality of the proposal before them. The possibility that reclamation techniques may have improved in the intervening time must also be borne in mind.										
33	Drawing up Reclamation Conditions Where a permission is granted, therefore, the conditions should be drafted in such a way that, even if the interest of the mineral operator applying for permission is subsequently disposed of, the requirements for reclamation can still be fulfilled, whether by a new operator or in the case of default, by the land-owner. The general principle is that a MPA should take into										

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	account whether it is feasible to implement the applicant's reclamation proposals successfully.										
34	Planning conditions for reclamation should be specific to the proposed site and should normally be framed with the intended after-use in mind.										
35	Where possible, it is normally desirable to have 'progressive' or 'rolling' reclamation to minimise the area of land occupied at any one time by the mineral working, unless to do so would be likely to affect adversely the standard of reclamation achieved, or would be impractical having regard to the type of operation and nature of the site. Conditions for progressive reclamation normally limit the area taken for mineral working at any one time and relate it to the rate of restoration of earlier phases of the operation. It is, however, important that conditions permit a sufficient area of land to be stripped of soils in advance of mineral extraction to allow for wet years when soil stripping operations may be impracticable. It is not advisable to specify actual dates in conditions for phasing unless there are overriding reasons to do so.										
36	For short-term workings it is usually appropriate to impose a detailed set of conditions at the time of granting planning permission. For longer-term workings, early agreement on the details of at least the later stages of reclamation may not be appropriate.										
37	For longer-term workings, it is also appropriate to agree at the outset outlines of requirements covering the main stages (e.g. filling, restoration and aftercare), together with detailed schemes for stripping and storage of soil materials. This must be sufficient to clearly demonstrate that the overall objectives of the scheme are practically achievable. Such workings should then normally require the submission of a detailed scheme or schemes for restoration and aftercare, for agreement, by some specific stage towards the end of the life of the permission. Sites where progressive reclamation is to be carried out can require submission of schemes for agreement from time to time as appropriate.										
38	<u>Soil Handling and Storage</u> For after-uses requiring the growth of vegetation, effective reclamation will depend on the appropriate identification and management of soil resources prior to and during work as well as in the later stages of restoration and aftercare. Soil resources in this context are taken to include any medium which is not contaminated and which has a realisable potential to permit plant root growth and to retain and provide water and nutrients. Planning conditions will normally prevent soil resources from being exported from the site. In addition they will usually require the separate stripping, storage (where necessary) and respreading in correct sequence of defined thicknesses of topsoil, subsoil, or any other soil-making materials. Some sites may contain considerable variations of soils within them, such as major textural differences, and it may be desirable to require separate stripping (and storage and restoration) of these materials. Such soil variations should have been identified in pre-application site surveys and provided for in the reclamation plan.										
40	<u>Landform and Landscape</u> In preparing a planning application for either a new site or any significant extension to an existing working, the applicant/operator should develop a site-specific landscape strategy, which includes:										

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	i. defining the key landscape opportunities and constraints; ii. considering potential directions of working, significant waste material locations, degrees of visual exposure etc; iii. identifying the need for additional screening during operations; iv. identifying proposed after-uses and preferred character for the restored landscape.										
42	Landscape and reclamation plans should address the impacts which mineral extraction can have on the existing landscape. These will include the working face and operations at the face, locations of waste tips, and haul roads.										
43	The intended final landform, gradients and drainage of a site should be designed and specified at the outset, with controls in planning conditions as appropriate. For many sites there may need to be some flexibility, and a continuation of the iterative design process, to take account of changes necessitated by operational, geological and mineral working safety demands. However, major planned final landform elements are not easily adjusted when extraction is almost complete, and modifications should not compromise the overall environmental acceptability of the scheme.										
44	Wherever possible and safe to do so the natural gradients and rock features of the surrounding landscape should be imitated when forming new screening banks, soil storage bunds and final faces.										
50	<u>Backfilling or Infilling with Mine and Quarry Wastes</u> Filling of a mineral void with these materials will be controlled by planning conditions. The conditions will need to address both the manner and sequence of filling the excavation and specify, usually by appropriate reference to plans and cross sections, the intended gradients, landform and contours of the final surface. Allowance should be made for predicted final settlement. Mine and quarry wastes are not controlled wastes as defined under the Environmental Protection Act 1990 (the EPA 1990).										
51	<u>Infilling with Controlled Wastes</u> However, the choice to integrate the two activities should be a deliberate and conscious one, which takes account of the joint impact of the extraction and landfill on the site and surrounding area.										
55	<u>Restoration</u> Restoration conditions also need to cover remedial treatment of soil so as to facilitate the use of cultivation, harvesting and drainage equipment for the aftercare period and the longer-term management of the land.										
59	<u>Aftercare Consultations and Responsibilities</u> Before imposing an aftercare condition, the MPAs are required to consult the appropriate Agriculture Minister (through the regional Land Use Planning Units of MAFF) where they propose that the land should be used for agriculture, and to consult the Forestry Commission where they propose that it should be used for forestry.										

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61	Provided the necessary information has been submitted by the operator (see Boxes 5 and 6 in Annex A) then the consultations required for successful aftercare to take place should not be allowed to lead to undue delay in the grant of planning permission or the completion of an agreement on the aftercare condition or scheme.										
62	Form of Aftercare Conditions An aftercare scheme will usually be appropriate with a long-term permission where restoration and aftercare may not be begun for a number of years. It should provide a flexible framework for a successful programme of aftercare. There may, however, be cases where it would be appropriate to specify aftercare steps in the aftercare condition itself - e.g. where mineral working will be short-term and the aftercare relatively straightforward, or for the first phase where progressive restoration and aftercare are to be carried out relatively quickly.										
70	Financial Responsibility for Aftercare It is important that the likely aftercare requirements are made clear at the outset so that operators are aware of the cost implications involved, and can make provisions for them.										
74	Aftercare and Agricultural Set-Aside Before seeking to set land aside farmers and landowners are therefore advised to ensure that they are capable of meeting both aftercare planning requirements and AAPS management rules. Where this cannot be achieved land should not be set aside.										
75	Planning Obligations However, planning obligations which are sought should fairly and reasonably relate in scale and kind to the proposed development.										
82	New or Improved Reclamation Conditions for Existing Permissions and Workings, Including Interim Development Orders and Old Mineral Permissions The new schemes should include provisions for landform, restoration and aftercare of sites to a suitable after-use. Where a site is already subject to satisfactory conditions providing for restoration and aftercare there should be no need to alter them. In all other cases, appropriate restoration and, where relevant, aftercare conditions should be imposed and provision should be made for reclamation to an appropriate after-use as soon as practicable.										
86	Financial Provision for Reclamation It is Government policy that properly worded and relevant planning conditions which are complied with and, where necessary, enforced, should be able to secure the restoration, aftercare and after-use of mineral sites. No payment of money or other consideration can be required when granting a planning permission except where there is specific statutory authority…Financial guarantees to ensure the reclamation of mineral sites should therefore not normally be required, and policies in development plans should not state that a local authority will require or seek bonds other financial guarantees to underpin planning conditions.										
91	Responsibility for the restoration and aftercare of mineral sites lies with the operator and, in										

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	the case of default, with the landowner. Applicants should, therefore, demonstrate with their applications what the likely financial and material budgets for restoration, aftercare and after-use will be, and how they propose to make provision for such work during the operational life of the site. This is important to avoid future dereliction and the possibility that the costs of reclamation of mineral sites might have to be borne by other public or private sources.										
93	Any demonstration by an operator of how they intend to make financial provision for restoration, aftercare and after-use should relate to the development proposed. MPAs should not seek a demonstration or provision of unlimited cover for unspecified future liabilities or for matters where normal planning mechanisms would apply. In particular MPAs should not seek financial guarantees from applicants, prior to the grant of planning permission, to deal with possible future breaches of planning controls that can be dealt with through existing planning enforcement powers and procedures.										
94	There may remain exceptional cases where it will be reasonable for an MPA to seek a financial guarantee to cover restoration (including aftercare) costs, through a voluntary agreement/planning obligation at the time a planning permission is given. Examples of such situations may be: i. for very long-term new projects where progressive reclamation is not practicable, such as a super-quarry or some types of industrial or metalliferous mineral sites, where incremental payments into a secure fund may be made as the site develops; ii. where a novel approach or technique is to be used, but the MPA considers it is justifiable to give permission for the development; iii. where there is reliable evidence of the likelihood of either financial or technical failure, but these concerns are not such as to justify refusal of permission. However, it is the Government's view that where an operator is contributing to an established mutual funding scheme, such as the SAGA Restoration Guarantee Fund, it should not be necessary for an MPA to seek a guarantee against possible financial failure, even in such exceptional circumstances.										
95	There are some other circumstances where a financial guarantee might be appropriate as part of a planning obligation, including where the mineral developer contributes funding towards management of the new after-use of the land which needs to last beyond the formal aftercare period.										
96	It is important that where MPAs may seek specific financial guarantees for site reclamation, this does not unfairly discriminate against smaller operators. Therefore, all planning controls must be applied on an even-handed basis, regardless of the size of the operator.										
97	<u>Monitoring and Enforcement of Restoration, Aftercare and Related Site Operations</u> The objective should be for all relevant parties to have in place adequate systems, including quality controls and staff with appropriate training and skills, to achieve their parts in securing successful site reclamation in the most cost-effective manner.										
98	Mineral operators should ensure that good records of all relevant planning documents, and of operations carried out, are kept at each site; and similar information should be held by the MPA.										

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99	It is recommended that mineral operators provide MPAs with an annual report on each of their sites, which indicates how they have monitored and complied with specific planning conditions. For new sites such a requirement could be included as a planning condition, providing that the actual conditions to be monitored and reported on are sufficiently precise and identified. However, monitoring reports should not be seen as an alternative to proper and objective monitoring of compliance by the MPA.										
100	MPAs should also have a planned series of visits to sites to check on key activities at the right times, such as in advance of soil stripping and stages of restoration, in addition to routine monitoring and recording of progress.										

MPG10: PROVISION OF RAW MATERIAL FOR THE CEMENT INDUSTRY

Paragraph	MPG10 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
3	Introduction The Government places great importance on reducing the level of imports of building and construction material, and wishes to encourage domestic production to counter the rising import trend and to provide employment. The Government would also not wish to discourage any export opportunities that might arise. The Government therefore looks to mineral planning authorities to make provision for adequate supplies of raw material for the industry as it endeavours to meet future domestic demand.										
4	It is important that short term gains should not be achieved by creating environmental debts for future generations. The encouragement of cement production must therefore be balanced against important environmental and conservation interests. The industry are asked to draw up schemes for new quarrying in consultation with the minerals planning authorities which reflect these environmental considerations. Key features of these schemes will be proposals for the working arrangements and the restoration and after-use of both existing operations and new sites.										
26	Development Plans Development plans provide an opportunity for considering the various options for the future location of mineral workings, identifying preferred locations and the safeguarding of mineral resources for future working. Structure plans should identify areas for mineral development in broad terms. Mineral local plans should identify are as in more detail using Ordnance Survey-based maps.										The South East Plan Policy M5 states: "Existing mineral sites, and proposed sites and 'areas of search', should be identified in mineral development documents for the extraction and processing of aggregates, clay, chalk, silica sand and gypsum. These should then be safeguarded in local development documents." West Midlands RS policy M1 confirms that development plans should indicate sites/areas where future mineral working would or would not be appropriate.
27	Development plans should also set out the environmental criteria against which planning applications will be assessed, and policies for the working, reclamation and after-use of mineral working sites. They should also carry forward national policies for landscape and historic or nature conservation and for agriculture which may constrain the choice of sites for mineral working.										

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28	In cement-producing areas, development plans should try to assess the likely raw material needs of the industry and having examined the various options which are available identify preferred areas of working which will meet these needs. The forecast of possible future demand for minerals used in the production of cement at annex B should inform the assessment of likely needs. Mineral planning authorities should discuss the choice of sites with the cement industry when formulating these plans. The choice of sites must take into account national policies on landscape and historic or nature conservation and on agricultural land. The plans should also safeguard mineral resources for future working. The plans should set out the development control criteria which new planning applications for mineral extraction must satisfy. They should also set out policies and proposals for the working, landscaping, reclamation and after-use of mineral sites.										Specific development control policies relating to cement production are absent from the RSs. For safeguarding assessment refer to paragraph 13 MPS1. For restoration policy assessment refer to MPG 7.
31	<u>Supply</u> Policies for the release of land for mineral working and cement production should therefore balance the need for the development, environmental, social, agricultural and other relevant considerations.										
34	<u>Location of Plant and Production Capacity</u> It follows from this that, in order to maintain and in some cases increase production at existing plants, it will be necessary for the cement makers and the mineral planning authorities to identify areas of working and to safeguard resources reasonably near existing plants, after taking account of all environmental criteria. Proposals will also need to be drawn up for the working, landscaping, restoration and after-use of quarries and plant sites.										The need to safeguard minerals from sterilisation is addressed in the East of England Plan (Policy M1), the East Midlands RS Minerals Policy 37: Regional Priorities for Minerals, North East RS (Policy 42), West Midlands RS Policy M1: Mineral Working for non-energy minerals, South West RS Policy RE10: Supply of aggregates and other minerals and London Plan Policy 4A.31: Spatial policies to support the better use of aggregates. However, these policies do not set out the minerals they apply to at the regional level. Yorkshire and Humber RS Policy ENV4 and South East Plan Policy M5 addresses mineral safeguarding and specifically identifies all the mineral resources that will need to be safeguarded from sterilisation (including clay, chalk and limestone). North West RS Policy EM7 defines which regionally important minerals need to be safeguarded. However, the policies do not set out the requirement to safeguard resources reasonably near existing cement plants.

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36	Wharves For their part, planning authorities should make every effort to identify and safeguard suitable locations for wharves in their development plans.										
38	Safeguarding As mineral resources are finite, local planning authorities should make every effort to safeguard in their development plans, and through development control, those deposits which are of economic importance against other types of development which would be a serious hindrance to their extraction. It will usually be necessary to consider need over a much longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the time scales of the proposed mineral working in order to keep blight to a minimum. Where it is possible to extract minerals prior to other more permanent forms of development this should be encouraged unless there are good planning reasons for not doing so.										The need to safeguard minerals from sterilisation is addressed in the East of England Plan (Policy M1), the East Midlands RS Minerals Policy 37: Regional Priorities for Minerals, North East RS (Policy 42), West Midlands RS Policy M1: Mineral Working for non-energy minerals, South West RS Policy RE10: Supply of aggregates and other minerals and London Plan Policy 4A.31: Spatial policies to support the better use of aggregates. However, the policies do not set out the minerals they apply to at the regional level. Yorkshire and Humber RS Policy ENV4 and South East Plan Policy M5 address mineral safeguarding and specifically identify all the mineral resources that will need to be safeguarded from sterilisation (including clay, chalk and limestone). North West RS Policy EM7 defines which regionally important minerals need to be safeguarded. Policy support for prior extraction is absent from all RS mineral policies.
39	National Parks The Government's policy on the treatment of applications for mineral extraction in the National Parks is set out in MPG1. Applications must be considered on their merits, but because of the serious impact which mineral working may have on the natural beauty of the Parks, minerals applications in these areas "must be subject to the most rigorous examination". Extraction should be demonstrated to be in the public interest, and consideration of such applications should therefore normally include an assessment of: i. the need for the development, including the extraction of the mineral in terms of national considerations and the impact of permitting or refusing it upon the local economy; ii. the availability and cost of alternative sources of supply; iii. any detrimental effect on the environment and the landscape and the extent to which that could and should be moderated; iv. whether in the light of this assessment the proposed development would be justified in the public interest. (Hansard, House of Commons 9 April 1987 columns-393-394).										

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40	Areas of Outstanding Natural Beauty AONBs are designated under the National Parks and Access to the Countryside Act 1949 for the purpose of preserving and enhancing their natural beauty and, as is the case with National Parks, they may also contain valuable chalk and limestone deposits. The Government's policy on AONBs (Hansard, House of Commons 29 July 1982 Cols 707-10) also requires that minerals applications in these areas "should be subject to the most rigorous examination".										
41	National Nature Reserves and Sites of Special Scientific Interest DOE Circular 27/87 (WO 52/87) emphasises that in determining planning applications and drawing up development plan policies planning authorities should take full account of nature conservation factors particularly in areas designated as National Nature Reserves or Sites of Special Scientific Interest for their flora, fauna or geological or physiographic features. It specifies that mineral applications in these areas should be subject to the most rigorous examination. English Nature should be consulted on such applications in England and in Wales consultation should take place with the Countryside Council for Wales. It is recognised that there may sometimes have been cases where mineral workings have been beneficial in the establishment of new wildlife habitats and in the exposure of important geological features.										
42	Other Environmentally Important Areas Planning authorities may designate in their development plans other environmentally significant areas, such as special landscape areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not normally be as high as that given to the statutorily designated areas referred to above.										
43	Ancient Monuments and Archaeological and Other Cultural Interests Mineral working may damage or destroy irreplaceable sites, structures and remains of historic archaeological interest that are of importance to the national heritage. The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features, and mineral planning authorities should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings when determining applications for extraction. Planning Policy Guidance Note 16: Archaeology and Planning (PPG16), and the CBI Code of Practice for Minerals Operators, underline the importance of identifying as early as possible the likely presence and importance of any archaeological sites liable to be affected by the proposed development. In England this should involve early consultation with the County Archaeological Officer or equivalent (listed in PPG16) and in Wales with the regional archaeological trust. Where remains are scheduled (under the provisions of the Ancient Monuments and Archaeological Areas Act 1979), the Secretary of State for the Environment's consent is needed before works may proceed. Where buildings are listed, listed building consent is required before they may be altered or demolished.										
44	Agricultural Land										

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	Applications for minerals extraction from land used for agriculture are subject to policies set out in DOE Circular 16/87 (WO 25/87). The Government's overall policy is that when considering the allocation of land for development and in deciding applications for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects. The Circular also recognises that minerals have to be worked where they occur and that mineral workings provide valuable raw materials for industry and can contribute to the rural economy. These factors, and the feasibility of a high standard of restoration, therefore need to be considered in deciding planning applications for mineral working affecting agricultural land. Where minerals underlie good quality agricultural land, the Circular advises that the best and most versatile land is a national resource for the longer term and should in general be protected from irreversible development.										
45	Green Belt Proposals for mineral working also arise within Green Belts. The government's policy is set out in Planning Policy Guidance Note 2: Green Belts (PPG2). This states that the extraction of minerals need not be incompatible with Green Belt objectives provided that high environmental standards for working and landscaping are maintained and that the site is well restored to an appropriate use.										
47	Local Environmental Effects MPAs should have regard to all material considerations when determining applications, including these guidelines and relevant policies in development plans. They will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the cement industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them. The industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns of neighbouring sites with regard to site operation and restoration. The objective must be to ensure that any environmental damage or loss of amenity caused by mineral working is kept to an acceptable level.										
48	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, the projects concerned will need to be subject to environmental assessment (EA) under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988… … It is therefore the industry's intention to continue its practice of submitting statements, covering all relevant issues, in support of planning applications. The Government welcomes this.										

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53	Transport The policy implications for the planning system are that cement plants generate significant amounts of road traffic and that the scope for transferring this to the railways is currently limited. MPAs should pay particular consideration to traffic routing when determining new planning applications. The industry should keep under review the options for using rail transport and use it in preference to road transport wherever it is cost effective to do so taking account of the possibility of obtaining grants under Section 8 of the Railways Act 1974 for the construction of rail facilities.										Paragraph 7.27 within the Regional Transport chapter of the East of England Plan confirms that the Regional Transport Strategy encourages movement of minerals by rail, sea and inland water and the safeguarding of related facilities. This has not been translated to Minerals policy. However, in accordance with Policy T10, a key priority will be to maximise the proportion of freight, particularly longer distance freight, by modes other than road. Policy 42 of the North East of England RS confirms that LDFs, MWDFs should: "promote the transport of minerals and minerals products by rail and water wherever practicable and minimise the effects of transport by road. " Policy M1: Sustainable Construction refers to identifying sustainable supply routes and seeking to reduce delivery distances. The supporting text within Yorkshire and Humber RS refers to encouraging the use of rail and water to transport minerals.
54	Water Interests There is a substantial body of legislation in relation to water supply, pollution and land drainage. Mineral planning authorities and the industry should take into account the need to protect the flow and quality of water supplies in accordance with British and European Community legislation and the need to ensure that changes in the water table as a result of minerals extraction do not cause environmental damage. The National Rivers Authority should be consulted about all new mineral development proposals.										Specific policies for the protect ion of water quality are absent from all RS minerals policies. Paragraph 10.64 of the South East Plan states, "Mineral working and processing can have an adverse impact on the environment and local amenity and MDFs should include policies to manage impacts such as noise and dust and encourage good site management and effective restoration."
55	Air Pollution Cement production can generate significant air pollution. Under the Environmental Protection Act 1990 the manufacturer of cement or clinker must be authorised by HMIP for integrated pollution control. The operator must demonstrate the use of the best practical environmental										

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	option (BPEO). The bulk handling of cement other than at the point of production requires authorization from the local authority. The Secretary of State is issuing guidance notes to be used by both HMIP and Local Authorities to assist in achieving the objectives set down in the Environmental Protection Act 1990.										
57	Landbanks Mineral planning authorities should therefore maintain landbanks of permitted reserves of raw materials for cement plants, providing that the industry come forward with sufficient environmentally acceptable proposals. These landbanks should include the industry's primary materials (chalk and limestone) and also secondary materials (clay and shale). There should be a landbank calculated for each site.										The North West RS Policy EM7, West Midlands RS Policy M1 identify the need to maintain landbanks. However, the policy does not refer to mineral specific landbank requirements. The Yorkshire and Humber Policy ENV4 states MPAs must endeavour to maintain a landbank for all nationally and regionally significant minerals. However, the policy does not refer to specific landbank requirements. Policy RE11 of the South West RS requires MPAs to maintain a landbank of aggregates but not cement. Policy 43 of the North East RS refers to landbank requirements only for sand and gravel and crushed rock. South East Plan Policy M4 states, "MPAs should plan for: • a permitted reserve of chalk for cement manufacture, sufficient to last for at least 25 years at current production rates, should be maintained throughout the Plan period in Kent and Medway"
58	The size of the cement industry's landbank should be directly linked to the scale of capital investment envisaged at a site, for an important feature of the industry is the high cost of investment and the long amortisation periods this entails. Mineral planning authorities should normally aim to maintain cement plant with a stock of permitted reserves of at least 15 years. Where significant new investment (such as a new kiln) is agreed with the mineral planning authority, the plant should be provided with a stock of permitted reserves to provide for at least 25 years. New plant on a greenfield site should be provided with a stock of permitted reserves lasting more than 25 years.										
59	Development plans should normally allocate sufficient land for mineral extraction for cement manufacture to provide for the maintenance of landbanks. Structure plans should set out the general principle of maintaining a landbank for cement plant, and mineral local plans should										

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	seek to identify areas where minerals will be worked. Sufficient land should be allocated to maintain this landbank throughout, and at the end of, the plan period.										
60	It should be noted that the general commitment to maintain a landbank does not remove a mineral planning authority's or the Secretary of State's discretion to refuse planning permission for an application should there be overriding environmental objections. Planning applications may also be refused within areas allocated in development plans if the actual development proposal is judged to be unacceptable on environmental grounds.										
61	In most parts of the country, mineral planning authority boundaries should constitute a suitable basis on which to base a landbank policy, but mineral planning authorities may choose to adopt either a sub-regional or a sub-county approach as appropriate. Whatever area is chosen for landbank purposes, it is essential that production and reserve data should be available and the industry and mineral planning authorities should work together to facilitate this.										
63	The Government takes the view that it is in the national interest to maintain and increase cement production, and to increase the scope for competition. Sufficient reserves of minerals should be permitted for this. More permitted reserves are particularly needed where the size of the landbank is below the levels recommended in para 58 above. The cement makers and the mineral planning authorities should examine the feasibility of bringing forward planning proposals for new raw material reserves at the best balance of economic, environmental and social cost. In undertaking this the planning authorities may wish to have regard to the forecast at Annex B of the long term future demand for cement minerals.										
64	Working Practices, Restoration, Aftercare and After-use The Government looks to the cement industry to adopt working practices in their mineral extraction operations which will cause the least adverse environmental impact and to endeavour to be a good neighbour. The Government has commissioned research into the environmental effects of surface mineral working and this will provide the basis for further advice on good environmental practice for the minerals industry generally. The Government will expect the cement industry to take account of such guidance in operating its present sites and in any future operations.										
65	It is established Government policy that restoration and, usually, aftercare will be required to make mineral workings fit for beneficial after-use and environmentally acceptable. This may include restoration to agriculture, forestry, management for nature conservation, provision of public open space, recreation or other development……Wherever practicable, mineral planning authorities and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved…										The East of England Plan Minerals Policy (Policy M1) does not include details pertaining to restoration of mineral sites. However, the overarching environmental protection and enhancement policies of the Plan (ENV1 and ENV3) promote the conservation, enhancement, restoration and re-establishment of habitats and species. Both the supporting text and Policy 37 of the East Midlands RS refer to the restoration of former mineral extraction sites.

Paragraph	MPG10 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
											The North East RS Policy 42 refers to the delivery of high quality restoration and aftercare and appropriate beneficial after uses. Paragraph 10.76 of the South East Plan refers to restoration and states, "Whatever the after-use, it will be essential that it is established to a high standard with appropriate aftercare and management."
66	Reinstatement of sites to an appropriate after-use should be an integral part of the planning of raw material supplies for the cement industry. One of the distinguishing features of the industry is the scale and duration of its mineral extraction operations, which can transform the local landscape. For each operational site the industry should therefore draw up a quarry plan, where such a plan is not already in existence, in consultation with the mineral planning authority, for the screening and phasing of working, restoration and aftercare, and the longer term after-use and changes to the landscape. As recognized in MPG 7, whilst final site reclamation and possible after-uses must be considered at the time of a planning application and appropriate provision made in the conditions, it is likely that most such schemes prepared before extraction commences will require updating and amendment during the lifetime of a working. Planning conditions may allow for this by requiring a general treatment scheme to be prepared and agreed before extraction starts, to be followed up by submission of detailed schemes for particular phases as they are completed and by setting a time limit for submission of the final reclamation plan which is commensurate with the duration of the mineral permission.										
67	Restoration of mineral sites may involve infilling all or part of the site with waste material. Where wastes other than those generated through the extraction process are being brought onto the site, the nature of the wastes to be used and the method of working need careful attention at the planning application stage and in obtaining an appropriate licence from the waste disposal authority. The Environmental Protection Act will require authorities to be satisfied that there are no hazards or difficulties arising from the landfill before they can provide a Certificate of Completion. This could involve particularly lengthy periods (20-30 years) but, if landfill gas from any site (eg clay extraction and backfill) could be utilised as a fuel for any adjoining cement plant, the resulting integrated scheme of extraction and use might optimise use of materials and restoration of land. Where the quarry plan envisages an afteruse involving built development, restoration should entail using inert waste to avoid the dangers of methane generation.										
68	It will be important for MPAs and the industry to work together, using both statutory and voluntary procedures available, to achieve satisfactory solutions for these older operational sites. The aim should be to do this within 2 years of the publication of these guidelines.										
70	<u>Speeding the Planning System</u> The Government accepts that quarrying proposals are often complicated and can arouse local controversy, and it is important that all material considerations receive careful attention. Nevertheless, the Government expects mineral planning authorities to determine applications expeditiously. The industry itself can help to reduce possible delay by discussing its										

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	development proposals with the authority, the local community, relevant local bodies such as the County Wildlife Trusts and the appropriate statutory bodies at an early stage before planning applications are formally submitted. Applicants should aim to provide authorities with as much information as possible to help them determine the application. If the authority needs further information, every effort should be made to ensure such requests are comprehensive at the outset. Mineral Planning Guidance Note 2: "Applications, Permissions and Conditions" (MPG 2) provides further guidance on the drawing up and determining of planning applications.										
72	Potential for waste disposal and energy conservation However, there needs to be careful control of the overall chemistry to ensure emission limits are not exceeded, and account has to be taken of the production capacities, product quality, energy consumption and capital investment for the safe and practicable burning of potential wastes. Kilns using waste would need appropriate planning and waste disposal licensing consents (these will become waste management licences with the implementation of the 1990 Environmental Protection Act). HMIP should be consulted about proposals for burning wastes.										
73	The industry should look for opportunities to dispose safely of waste in this manner.										
74	Industry will continue to look for other such opportunities.										
79	Implementation and Review These guidelines will provide the basic framework for the planning of raw material for cement. They will be taken into account by the Secretaries of State when considering development plans and individual planning applications which come before them for decision.										
80	MPAs should have regard to these guidelines in formulating development plans and when considering development proposals. Development plans should recognise the need to make provision for a continuing supply of raw material in the vicinity of existing plant in a manner compatible with other environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied. The mineral plans should also maintain a landbank of permissions compatible with these objectives.										
81	The cement industry has an important role to play in co-operating with, and contributing to, the development plan process. For example, the successful application of landbank policies depends upon the ready availability of information on reserves and production. The industry should endeavour to ensure that proposals for mineral development reflect these guidelines and come forward at the right time. The industry is also responsible for drawing up the quarry plans, in consultation with the mineral planning authorities, for achieving a high standard of operation while the site is being worked and for restoring the site when working has finished.										
82	These guidelines have been based on the best information currently available. They will need updating to reflect changes in demand, technology and environmental standards, but the policy of establishing landbanks will provide flexibility. The guidelines will be reviewed every four years.										

MPG13: GUIDELINES FOR PEAT PROVISION IN ENGLAND

Paragraph	MPG13 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
7	The Government wishes to see indigenous mineral resources developed within its broad objectives of encouraging competition, promoting sustainable economic growth, assisting the creation and maintenance of employment, and protecting the environment. For the economic well being of the country, it is essential that there is an adequate and steady supply of minerals to meet the needs of the community and to foster economic growth. At the same time, the Government recognises that peat is ultimately a finite resource, and that its extraction can have a significant environmental impact (see the UK Strategy for Sustainable Development (Cm 2426 - January 1994)).										
8	The implications of sustainable development for minerals planning in general are that avoidable and irretrievable losses of natural resources, such as minerals, should be limited. The objectives of sustainable development for minerals planning are: i) to conserve minerals as far as possible, while ensuring an adequate supply to meet the needs of society; ii) to minimise production of waste and to encourage efficient use of materials, including appropriate use of high quality materials, and recycling of wastes; iii) to encourage sensitive working practices during minerals extraction, and to preserve or enhance the overall quality of the environment once extraction has ceased; iv) to protect designated areas of critical landscape or nature quality from development, other than in exceptional circumstances where it has been demonstrated that development is in the public interest.										
9	The Government's objectives for nature conservation are to ensure that its policies contribute to the conservation of the abundance and diversity of British wildlife and its habitats, or minimise the adverse effects on wildlife where conflict of interest is unavoidable, and to meet its international responsibilities and obligations for nature conservation.										
10	An essential task for Government, local authorities, and all public agencies concerned with the use of land and natural resources is both to make adequate provision for development and economic growth and to ensure effective conservation of wildlife and natural features.										
11	The Biodiversity Action Plan has set out underlying principles and objectives, to conserve and enhance biological diversity within the UK, and to contribute to the conservation of global biodiversity through all appropriate mechanisms. Objectives for conserving biodiversity are: i) To conserve and where practicable to enhance: a) the overall population and natural ranges of native species and the quality and range of wildlife habitats and ecosystems; b) internationally important and threatened species, habitats and ecosystems; c) species, habitats and natural and semi-natural habitats that are characteristic of local areas; d) the biodiversity of natural and semi-natural habitats where this has been diminished over recent past decades. ii) To increase public awareness of, and involvement in, conserving biodiversity. iii) To contribute to the conservation of biodiversity on a European and global scale.										
40	However, the Government wishes to continue to encourage the development of alternatives to peat for both the less demanding uses and of more specialised alternatives for more demanding uses…										
42	Government Policies in Respect of Peatland in England The Government's policy for peatlands in England is to: i) conserve a sufficient range, distribution and number of all peatland habitats, representing										Specific policies relating to Peat are absent from the South West RS, West Midlands and Yorkshire and Humber RS minerals policy.

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	part of the critical natural capital of the country; and promote the wise use of the wetland resource within the nation's peatland heritage; ii) avoid wherever practicable the destruction of important archaeological remains in peatland; iii) enable the horticultural industry to continue to be supplied with peat; and also to encourage the development and use of suitable alternatives so that market needs can be met in different ways; iv) provide a suitable framework for updating old permissions for peat extraction, especially in respect of rehabilitation of sites.										Paragraph 3.203 of the North East RS states that it is considered that specific policies on peat are not necessary. North West Policy EM7 refers to the North West being an important national source of Peat. However, further policy support for peat is absent.
43	It is therefore the Government's intention that the future extraction of peat in England from any new sites should be restricted to areas which have already been significantly damaged by recent human activity and are of limited or no current nature conservation or archaeological value. Wherever possible, subsequent restoration of such sites should give priority to wetland rehabilitation and to the enhancement of the nature conservation resource.										
44	Government policy, as agreed in Article 4 of the Framework Convention on Climate Change signed in Rio in 1992 and ratified in 1993, is to adopt policies and take corresponding measures to protect and enhance greenhouse gas sinks and reservoirs. Undisturbed peatlands store large amounts of carbon…The presumption in this MPG against the exploitation of peatlands which have not been significantly damaged will therefore help to meet the UK's Rio commitment.										
45	The demands of the horticultural user markets should be met by a combination of home produced peat, imported peat, and alternative materials. The Government's commitment towards sustainable development and using resources prudently means that unnecessary wastage of resources should be avoided. Therefore, so far as possible, peat should be used for higher quality markets, while its use should be avoided or minimised where it is either not needed or not the best material, for example for general soil improving, and mulching. There may be further scope to reduce total usage of materials in some sectors. There should also be encouragement to use alternatives where these are suitable and represent other "sustainability" objectives such as recycling and waste minimisation. The range of alternatives suitable for the more specialised uses may increase as further research is undertaken.										
51	<u>Development Plans: General Considerations</u> In preparing Minerals Local Plans and UDPs, local authorities in appropriate areas should take into account the policies contained in this MPG. They should make provision for the conservation of peatland habitats and for identification of specific sites or areas which meet the criteria for selection for future peat working, as explained in paragraphs 52 to 61. Early discussion with the minerals industry and with English Nature (EN) and English Heritage (EH) in the preparation of plans will be helpful.										
52	<u>Policies for Nature Conservation of Peatland Habitats and for Peatland Archaeology in Development Plans</u> Sites of raised bog and other peatland habitats of key nature conservation importance should be identified in development plans…Planning authorities should seek advice from EN, who have a statutory role in advising on development plan preparation…Plans should also identify principal areas of major archaeological significance after consultation with the County										

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	Archaeological Officer (see paragraphs 75 to 77).										
53	Criteria for Selection of Sites for Future Peat Working: General Approach Peat producers, and other suppliers of materials to the user markets, should determine the level of output they wish to aim for in the light of market conditions.										
56	Guidelines for Development Plans MPAs should have regard to all material considerations when determining applications on these areas, including other national and regional policy guidelines.										
57	To conserve a full range of peatland habitats and archaeological deposits, peat extraction from bogs which retain a high level of nature conservation or archaeological interest should be permitted only in exceptional circumstances. These circumstances are only likely to arise where it can be demonstrated conclusively that extraction will not adversely affect the habitats, species or deposits being safeguarded. The lowland raised bogs of high nature conservation interest will primarily relate to sites, or areas within bogs, which are defined in the National Peatland Resource Inventory as land-use classes P1-P4, or where secondary peat surfaces contain valuable peat-forming species (see Annex B). These are areas which retain a primary peat surface or include a significant proportion of species characteristic of a lowland raised bog habitat. The Secretary of State would normally call-in, for his decision, planning applications which are likely significantly to affect these classes of raised bog. The advice of EN will be taken into account in deciding which applications are likely to have such effects. It is not expected that such sites would be identified for extraction in development plans. The archaeological value of all peatland is not yet systematically recorded, but EH has supported extensive survey work in several major areas and the results of this, and other, survey work is available in the Sites and Monuments records maintained by County Archaeological Officers, who should therefore be consulted by MPAs during plan preparation.										
58	When preparing development plans and in considering any applications for their extraction, mineral planning authorities will need to consider the nature conservation interest of these areas or sites. Where the peatland retains a primary surface, which includes a significant proportion of species characteristic of ombrotrophic (bogs) or minerotrophic (fens) conditions, planning permission should, as in the case of raised bogs, only be granted in exceptional circumstances. MPAs should consult EN when determining such cases.										
59	To ensure that as far as possible any areas identified in a development plan for peat extraction can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that sites are:- i) of little or no nature conservation or archaeological value; ii) of economically workable deposits; iii) likely to become available to the minerals industry within the plan period; and iv) are not constrained by other land-use policies (eg high quality agricultural land).										
60	Where the criteria listed above cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. But plans must be clear and unambiguously expressed in accordance with PPG12.										
62	Areas Designated for their Nature Conservation Importance: General										

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	Planning authorities must consult EN on any development proposals which are likely significantly to affect these sites (see PPG9 "Nature Conservation").										
67	As a matter of policy the Government wishes development proposals affecting potential SPAs and candidate SACs before they have been agreed with the European Commission to be considered in the same way as if they had already been classified or designated.										
68	The Government has chosen to apply the same considerations to development proposals affecting listed Ramsar sites as are applied to SPAs and SACs (see PPG9).										
69	Nature Conservation, Including Conservation of the Natural Beauty and Amenity of the Land, in Development Plans Structure Plans and part I of unitary development plans set out general policies and proposals on key strategic issues, taking account of the appropriate Published: 10 May 2002 national and regional policy guidance. They should identify key sites of nature conservation importance, such as SSSIs, NNRs, SPAs, SACs and Ramsar sites, to establish a strategic framework and exemplify the particular characteristics of nature conservation interest in the plan area in their national and international context. Policies to be applied to these sites should reflect their relative significance and place particular emphasis on the protection of internationally important sites. The detailed policies in local plans and part II of unitary development plans should conform to this framework.										
70	Structure plans, local plans and UDPs must include policies in respect of the conservation of the natural beauty and amenity of the land. Arising from article 10 of the Habitats Directive, regulation 37 of the Habitats Regulations states that such policies shall include policies encouraging the management of features of the landscape which are of major importance for wild flora and fauna. Suitable planning conditions and obligations may promote such management (for further advice see PPG9 "Nature Conservation").										
71	National Parks and Areas of Outstanding Natural Beauty Planning Policy Guidance Note 7 - "The Countryside and the Rural Economy" (PPG7) provides detailed Government planning policies for development in National Parks, the Broads and AONBs. The same policies apply to the New Forest Heritage Area. The Government considers that major developments should not take place in these areas save in exceptional circumstances. Because of the serious impact that mineral developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all mineral developments should be demonstrated to be in the public interest before being allowed to proceed.										
72	Consideration of mineral applications in such areas should therefore include an assessment of: i) the need for the development in terms of national considerations of mineral supply; and the impact of permitting the development, or refusing it, on the local economy; ii) whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iii) any detrimental effect of the proposals on the environment and landscape, and the extent to which that should be moderated; iv) in the case of extensions to existing workings, the extent to which the proposal would achieve an enhancement to the local landscape.										

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73	Proposals for mineral working also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance Note 2 -"Green Belts" (PPG2). Mineral extraction need not be inappropriate development in Green Belts; it need not conflict with the purposes of including land in Green Belts provided that high environmental standards are maintained and that the site is well restored.										
76	Archaeological and Other Cultural Interests The peat industry should, wherever practical, ensure that important archaeological and historic remains or features are physically preserved, and MPAs should have regard to the desirability of preserving the wider historic landscape (as defined in PPG15, paragraph 6.40) and of the archaeological heritage when determining planning applications…There should be early consultation with the County Archaeological Officer (listed in PPG16). Where physical preservation is not practical, MPAs should ensure that appropriate provision is made for the recording of archaeological remains, the conservation of significant artefacts and the publication of scientific results.										
77	Some of the most important sites in peatland may be scheduled as ancient monuments (Ancient Monuments and Archaeological Areas Act 1979), in which case scheduled monument consent (SMC) from the Secretary of State for National Heritage, who is advised by EH, must be obtained before any work can commence.										
78	Agricultural Land The Government's policy, as set out in PPG7, is that the best and most versatile agricultural land is a national resource for the future and considerable weight should be attached to protection of such land against irreversible development.										
79	Therefore, when considering the allocation of land for mineral development and in deciding any application for planning permission affecting agricultural land the agricultural implications must be considered together with the environmental and economic aspects, and the feasibility of a high standard of restoration.										
81	Forestry The scope of the Government's forestry and environmental policies for woodlands includes encouraging the establishment of new woodlands which enhance the character and appearance of landscapes and promoting the restoration of derelict land to woodland.										
83	Other Developments Affecting Peatlands Careful consideration should be given to the need for any other types of development to take place on peatlands.										
89	Treatment and Reviews of Existing Permitted Extraction Sites Wherever practical, a priority for after-use schemes should be to provide areas for nature conservation unless a different after-use is already specified by the planning permission and remains technically achievable and appropriate. However, this may not always mean re-creating the conditions which would lead to the re-establishment of a raised bog system. The topics to be covered in rehabilitation and after-use schemes should include: the phasing of										

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	remaining extraction; hydrology, water controls and drainage; depths of peat and its characteristics; underlying geology; extraction methods; preservation or recording of archaeological remains; final excavated site topography; vegetation protection, regeneration and management; methods and timescales of site management.										
90	For some sites the terms of existing legal agreements between EN and a site owner or operator should be drawn on in the preparation of schemes to submit to the MPA.										
91	Where an existing site under consideration forms part of a raised bog which also retains areas of nature conservation or archaeological importance, there should be appropriate safeguards to minimise the risk of damage to such areas. In some cases this may include the need to introduce buffer zones between the worked and undisturbed areas; but such measures should be proportionate to the importance and size of the undisturbed areas and their conservation and/or archaeological value.										
92	Considering Individual Planning Applications MPAs should have regard to all material considerations when determining applications, including this Guidance Note and relevant policies in development plans. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, archaeological, agricultural, landscape, traffic, site restoration and other effects of the proposals that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them as appropriate.										
96	Mineral planning authorities should have regard to the guidance given in paragraphs 52 to 61.										
98	Transport The Government would like to see as much freight as possible carried by rail or waterway rather than by road wherever possible.										
99	Working Practices, Restoration Aftercare and After-use It is established Government policy that restoration and aftercare will be required to make mineral workings environmentally acceptable and fit for beneficial after-use. This may include restoration to peatland habitats, agriculture, forestry, or other forms of amenity use. Applications for extraction of peat need to include information which demonstrates that the site can be restored satisfactorily; and if there is serious doubt whether a new extraction proposal can meet this requirement then it is doubtful whether permission for working should be given. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.										
100	Reinstatement of sites to a condition suitable for an appropriate after-use should be an integral part of the planning of peat extraction.										
101	Implementation and Review This Guidance Note will provide the basic framework for the planning for provision of peat and										

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	alternatives for soil improvers and growing media. It will be taken into account by the Secretary of State when considering development plans and individual applications which come before him for decision.										
102	MPAs should take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of materials in a manner compatible with environmental objectives. The plans should also provide guidance on the environmental objectives and the development control criteria which will be applied.										
103	The peat industry should endeavour to ensure that proposals for mineral development are consistent with this Guidance Note and that they are brought forward at the right time. The industry is also responsible for achieving a high standard of operation while a site is being worked and for restoring the site when working has finished.										
104	This Guidance Note has been based on the best information currently available. It will need to be kept under review and updated to reflect changes in demand, development of alternatives and environmental standards.										

MPG15: PROVISION OF SILICA SAND IN ENGLAND

Paragraph	MPG15 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
17	Regional Position MPAs in other areas should also take account of this guidance in drawing up minerals local plans.										
28	National Policy Framework: Supply The Government believes that for the economic well-being of the country it is essential that the silica sand consuming industries continue to receive an adequate and steady supply of indigenous raw material so that they can continue to meet the needs of the community for products which use silica sand in their manufacture. It is important that supplies to the manufacturing sector should be provided in the most environmentally acceptable way and with regard to the principles of sustainable development.										The North West RS Policy EM7, West Midlands RS Policy M1 identify the need to maintain landbanks of permitted reserves. However, the policy does not refer to specific landbank requirements. The Yorkshire and Humber Policy ENV4 states MPAs must endeavour to maintain a landbank for all nationally and regionally of permitted significant minerals. However, policy does not refer to specific landbank requirements for silica sand. Policy RE11 of the South West RS requires MPAs to maintain a landbank of aggregates. However, policy does not refer to specific landbank requirements. Policy 43 of the North East RS refers to landbank requirements for sand and gravel and crushed rock only. Policy M4 of the South East Plan confirms, "MPAs should plan for, • a permitted reserve of silica sand should be maintained throughout the Plan period in Surrey and Kent, equivalent at current production rates, to at least 10 years at existing sites and at least 15 years at new sites."
30	Sustainable Development For silica sand, this means that the planning system should ensure that the best and most										The need to safeguard minerals from sterilisation is addressed in the East of England Plan (Policy M1), the East

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	efficient use will be made of the available resources, so that the extraction of new reserves is limited to what is necessary to meet the needs of the current generation; and that the overall quality of the environment affected by silica sand extraction should be maintained or improved over time. Silica sand deposits should not be sterilised by other forms of development which would make them unavailable for use by future generations without good land-use planning reasons. It is desirable that high grade silica sands should as far as possible be conserved for use where they are required.										Midlands RS Minerals Policy 37: Regional Priorities for Minerals, North East RS (Policy 42), West Midlands RS Policy M1: Mineral Working for non-energy minerals, South West RS Policy RE10: Supply of aggregates and other minerals. However, the policies do not set out the minerals they apply to. Yorkshire and Humber RS Policy ENV4 addresses mineral safeguarding and specifically identifies all the mineral resources that will need to be safeguarded from sterilisation (including silica sand) The South East Plan includes a policy for safeguarding. Policy M5 relates specifically to the safeguarding of mineral resources (including silica sand) North West RS Policy EM7 defines which regionally important minerals need to be safeguarded (including silica sand)
31	Use of Materials It is important that silica sand resources should be used as efficiently as possible and that unnecessary wastage of resources should be avoided. Within the general definition of silica sand, there are certain high grade materials which, wherever possible, should be reserved for industrial end-uses which require such sand and for which there is no readily available alternative. …It is in the national interest that high grade silica sand should not be wasted and that its use in the construction industry should be minimised.										
32	Recycling MPAs and the extracting and consuming industries should therefore consider what steps they can take to encourage re-use/recycling where there are environmental benefits to be gained.										
33	In recent years, the glass and foundry industries have made efforts to recycle, both to save sand and to reduce energy consumption. The Government wishes to encourage this and looks to the consumer industries to monitor the amounts of their products which are re-used or recycled and, where appropriate, to set targets for increased re-use/recycling										
37	The Government encourages greensand operations to aim as far as possible to achieve a high level of recycling. In the case of resin sand operations, the Government encourages industry to strive for technological advances which will increase the amount of recycling of this type of sand.										
38	The consumer industries are encouraged to explore further the scope for such innovation, including technology which would enable the quantities of silica sand required to be reduced										

Paragraph	MPG15 Policy (Abridged)	East of England Plan Adopted May 2008	East Midlands Regional Plan Adopted March 2009	The North East of England Plan Adopted July 2008	North West of England Plan Adopted Sept 2008	The South East Plan Adopted May 2009	Draft RSS for the South West June 2006	RSS for the West Midlands January 2008	The Yorkshire and Humber Plan May 2008	The London Plan Adopted February 2008	Comments
	further.										
40	Silica Sand Provision in Development Plans In carrying out their development plan functions, local authorities in areas which have historically produced silica sand, or are known to contain silica sand deposits, should take into account the policies contained in this MPG. They should recognise the material scarcity of silica sand and also aim to make provision in their development plans for an appropriate level of production which takes account not only of recent production levels in the area, but also of regional and national needs, through the identification of specific sites and the inclusion of preferred areas or areas of search.										South East Plan Policy M5: Safeguarding of mineral reserves, wharves and rail depots confirms existing mineral sites and proposed areas of search should be identified in mineral development documents. In addition paragraph 10.96 states, "Silica sand is quarried from the Lower Greensand in Kent and Surrey. Future silica sand production in the region is likely to be confined to these counties, with the major extraction site located between Bletchingley and Godstone, where there are substantial reserves of high quality silica sand. These resources are potentially large enough to satisfy regional needs for high specification requirements in the Plan period." West Midlands RS Policy M1 states that Development Plans should indicate sites/areas where future mineral working would or would not be appropriate.
41	To ensure that the areas identified in the development plan can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that the land is: i. underlain by potentially economically workable deposits of mineral; and ii. likely to become available to the minerals industry within the plan period. Where these points cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. Plans must be clear and unambiguously expressed in accordance with PPG12.										
42	In order to assist in the delineation of these areas in development plans, the silica sand industry should co-operate with MPAs wherever possible by providing information about the location of mineral resources in their areas.										
45	Landbanks However, MPAs in areas containing silica sand deposits need to make an appropriate contribution to national requirements and should therefore aim to maintain landbanks of silica sand permissions, as far as this is possible and realistic, provided that the industry comes forward with suitable applications.										
47	Due to the national need for silica sand, it is important that each production site is adequately										

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	provided for, unless exceptional circumstances prevail. In practice, this will mean that most sites will require a reasonable level of reserves. MPAs should aim therefore to ensure that landbanks of at least 10 years are maintained for individual sites. However, in operating this policy, MPAs will also need to consider the Government's general policy of encouraging competition. The need for the mineral must be balanced against environmental constraints and there may be overriding environmental reasons why the stock of permitted reserves at some sites may not be replenished as they are used up. Care and flexibility will be needed in addressing these issues. In practice, there may be difficulties as production data may be confidential at site level, but it may be difficult to calculate landbanks or to make specific provision in mineral local plans without this information. It will therefore be in both the MPAs and industry's interests to maintain a dialogue and informed analysis of actual need and supply.										
48	In the case of significant new capital investment by the industry in existing or new sites, it may be necessary for the plant to be provided with a stock of permitted reserves to provide for at least 15 years, or substantially longer than this, for greenfield sites, depending on the circumstances.										
52	The landbank requirement should be calculated by multiplying the average of the last 3 years' production for which figures are available by the appropriate number of years or by reference to levels of provision set out in the development plan. The calculations should have regard to the quality of sand and the use to which the material is to be put.										
53	Safeguarding Silica sand is a scarce resource and MPAs should, as far as possible and in co-operation with other planning authorities, safeguard deposits which are, or may become, of economic importance, against other types of development or other constraints which would be a serious hindrance to their extraction.										
54	It is essential to consider the need for silica sand over a longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the timescales and scale of investment of the proposed mineral working in order to prevent undue delay. Where it is possible to extract silica sand prior to some other more permanent form of development this should be encouraged unless there are good planning reasons for not doing so. MPAs may define Mineral Consultation Areas (MCAs) in their plans. These enable county and district councils to liaise where surface development would be likely to affect or be affected by the winning and working of minerals. MPG1 (paragraphs 36-39) provides further advice on MCAs.										The East of England Plan does not make reference to the prior extraction of minerals.
63	Considering Individual Planning Applications: General Planning applications should be determined in accordance with the development plan unless material considerations indicate otherwise. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered the potential effects when preparing planning applications and has sought to mitigate them as appropriate.										
64	Assessment of Need and Supply As far as silica sand is concerned, authorities should have regard to the balance of real need										

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	and real supply. But landbank calculations and estimates of real supply can seldom be exact and decisions on individual applications should not be determined on an over-precise calculation of whether supply matches the landbank requirement.										
65	In considering applications, consideration should be given to the position in respect of permitted reserves and whether the particular nature and qualities of the silica sand, such as suitability for particular end-use not met by other available sources in the area or region, in itself justifies granting permission.										
66	It is important to draw a distinction between the reasons for a landbank as discussed in paragraphs 43-52 above and the need for the size of a particular permission to reflect the levels of capital investment required at specific sites.										
69	Environmental Effects The silica sand industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns on site operation and restoration. Any environmental damage or loss of amenity caused by mineral working should be kept to a minimum.										The need to ensure the effective environmental management of sites is absent from East of England Policy M1. Paragraph 10.61 of the South East Plan states, " extraction and processing should: • safeguard the region's naturally occurring minerals and encourage the use of suitable alternative construction materials where appropriate • protect the environment and local amenity • minimise the adverse impacts of the transport of minerals and construction materials. In addition Policy M1: Sustainable Construction states, "…..encourage the development of sustainable construction practices, and to promote good practice, reduce wastage and overcome technical and financial constraints, including identifying sustainable supply routes and seeking to reduce delivery distances."
70	Operators Proposals In considering proposals for minerals development, authorities will wish to satisfy themselves that the operator's proposals for managing the site, and for restoration and aftercare, will achieve high standards of operating and reclamation practice in accordance with modern planning requirements…MPAs should thus have regard to the practicality of the proposal before them.										
74	Transport Planning authorities should, individually or collectively, have regard to these factors when drawing up policies in their development plans on such matters as transport modes, routing										

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	and the safeguarding of freight depots.										
75	Discussions should take place with MPAs at an early stage on how traffic generated by the proposal will be managed to minimise environmental disturbance.										
77	Planning authorities should, as far as they reasonably can, safeguard existing rail head facilities and encourage new ones.										
78	Water Interests MPAs and the industry should take into account the body of legislation in relation to water supply, pollution control and land drainage…The Environment Agency should be consulted about all new development proposals. Where working would take place below the natural water table applications will need to include proposals for a suitable aftercare.										Specific policies for the protect ion of water quality are absent from all RS minerals policies. Paragraph 10.64 of the South East Plan states, "Mineral working and processing can have an adverse impact on the environment and local amenity and MDFs should include policies to manage impacts such as noise and dust and encourage good site management and effective restoration."
79	Working Practices, Restoration, Aftercare and After-use Applications for extraction of minerals such as silica sand need to include information which demonstrates that the site will be restored satisfactorily.										
80	Planning applications should include comprehensive plans and statements as to how sites will be progressively worked with a view to achieving particular restoration enabling appropriate after-use to take place.										
82	However, all planning applications should contain sufficient detail of working and restoration methods and programmes to allow an assessment to be reached on the viability of the application and of proposals to achieve the intended after-uses. Operators should therefore draw up Quarry Plans to accompany planning applications.										
83	Where possible working and reclamation should be in a progressive manner……However, the aim should be to minimise the area open and disturbed at any one time and, where reasonably practicable, to secure progressive restoration of the site. Care should be taken to conserve all soil and soil-making materials suitable for use in restoration.										
84	Whether a wet after-use is acceptable will need to be considered alongside the policy on agricultural land set out at paragraphs 61-62 and in consultation with the Environment Agency.										
85	MPAs and the industry should bear in mind opportunities for habitat creation and enhancement even where nature conservation may not be the primary end-use of a site.										
88	Implementation MPAs must take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of										

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	silica sand in a manner compatible with environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied.										
89	The industry should endeavour to ensure that proposals for mineral development reflect this Guidance Note and that they are brought forward at the right time. The industry is also responsible for drawing up quarry plans, in consultation with the mineral planning authorities; for achieving a high standard of operation while the site is being worked; and for restoring the site when working has finished.										

Appendix 4 Local Development Document matrices

SUFFOLK COUNTY COUNCIL, THE BROADS AUTHORITY, AND LONDON BOROUGH OF RICHMOND UPON THAMES

Key:

✓	Policy integrated
✖	Policy not integrated
	Not Applicable

MPS1: PLANNING AND MINERALS

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
11	Exploration Consider carefully applications for mineral exploration in order to avoid or minimise adverse impacts on the environment.			
12	Survey Use the best available information on mineral resources within their areas and consider the social, environmental and economic benefits and constraints of working them.			
	Undertake regular assessments of the reserves for which planning permission has been granted for all mineral workings in their areas, taking into account the need for, distribution, production and uses of, each type of mineral, while maintaining mineral operators' reasonable needs for commercial confidentiality.			
	Assess the range, volumes and availability of waste material which may exist within reasonable proximity and which could provide suitable alternatives to primary minerals			
13	Safeguarding Define MSAs in LDDs.	✓	✖	✖
	Encourage prior extraction of minerals.	✖	✖	✖
	In two-tier planning areas, include policies and proposals to safeguard mineral resources within MSAs in county LDDs and show MSAs in district LDDs. Counties should define MCAs and should be reflected in district LDDs.	✓	✖	✖
	District councils responsible for spatial planning of land defined in MSAs should not normally include policies and proposals in their LDDs for non-minerals development in those areas, or sensitive development around safeguarded mineral areas, where such policies would affect the potential for future extraction of minerals.			
	Safeguard existing, planned and potential rail heads, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals.	✖	✖	✖
	Identify future sites to accommodate the above facilities and reflect any such allocations in the LDDs of district councils in two-tier planning areas.	✖	✖	✖
	Safeguard existing, planned and potential sites for mineral handling, processing and distribution. Where appropriate, identify future sites for these uses and reflect any such allocations in the LDDs of district councils.	✓	✖	✖
14	Protection of heritage and countryside Where minerals development is proposed within, adjacent to, or where it is likely to significantly affect a European site (potential and classified SPA, candidate and classified SAC and listed Ramsar Sites), take account of the advice contained in PPS9 and the accompanying joint ODPM/Defra Circular.	✓	✓	✓

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	Do not permit major mineral developments in National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites except in exceptional circumstances			
	Consideration of such applications should therefore include an assessment of: i the need for the development ii the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need for it in some other way; iii any detrimental effect on the environment, the landscape and recreational opportunities.			
	Do not normally grant planning permission for a proposed mineral development on land within or outside a SSSI, if it is likely to have an adverse effect on a SSSI.	✘	✘	✓
	Ensure that the statutory protection given to many individual wildlife species, and the special protection afforded to European protected species, is fully taken into account when considering mineral proposals which might affect them.	✓	✓	✓
	Consider carefully mineral proposals within or likely to affect regional and local sites of biodiversity, geodiversity, landscape, historical and cultural heritage.	✓	✓	✓
	There is a general presumption against inappropriate development in the Green Belt, which should not be approved except in very special circumstances, mineral extraction need not be inappropriate development. However, in permitting mineral developments in Green Belts, authorities should ensure that high environmental standards are maintained during operation, and that sites are well restored to after-uses consistent with Green Belt objectives. All mineral-related developments in the Green Belt should be assessed against the policies in PPG2.			✓
	Adopt a presumption in favour of the preservation of listed buildings, nationally important archaeological remains, if mineral proposals would cause damage or have a significant impact on them, unless there are overriding reasons of national importance for the development to proceed.	✓	✓	✓
	Do not permit mineral proposals that would result in the loss or deterioration of ancient woodland, unless the need for, and benefits of, the development in that location outweigh the loss of the woodland habitat.	✘	✘	✓
	Take account of the value that existing woodland offers in terms of amenity and habitat, when considering mineral proposals.	✘	✘	✓
	Where significant development of agricultural land is unavoidable, seek to use areas of poorer quality land in preference to that of a higher quality, except where this would be inconsistent with other sustainability considerations.	✘	✘	✘
	Take account of the value of the wider countryside and landscape.	✓	✓	✓
	Have regard to the positive or negative effects that minerals operations may have on rural communities and the extent to which adverse impacts of such operations could be moderated.	✘	✘	✘
15	<u>Supply</u> Identify at the regional level, those minerals which are of national and regional significance and include policies for them in RSS.			
	Aim to source mineral supplies indigenously.	✘	✘	✘
	Before considering the extraction of primary materials, take account of the contribution that substitute or recycled materials, mineral products and marine dredged aggregates would make to the supply of materials.	✓	✓	✘
	Ensure the best integration of social, environmental and economic costs and benefits is achieved, through applying the principles of sustainable development, by carefully considering how best to maintain an adequate and steady supply of minerals for the economy and society, commensurate with protecting the environment and securing the prudent use of natural resources, and set out policies to achieve this in RSSs and LDDs.	✓	✘	✘
	Identify sites, preferred areas and/or areas of search, having taken account of environmental considerations, to provide greater certainty of where future sustainable mineral working will take place.	✓	✘	✘

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	Consider the benefits, in terms of reduced environmental disturbance and more efficient use of mineral resources, of extensions to existing mineral workings rather than new sites.	✓	✘	✘
	Take account of the benefit, including the reduction in carbon emissions, which local supplies of minerals would make in reducing the impact of transporting them over long distances by road.	✘	✘	✘
	Recognise the important role that small quarries can play in providing historically authentic building materials in the conservation and repair of historic and cultural buildings and structures.	✘	✘	✘
	Where extraction of more than one mineral from a site is proposed, consideration should be given to any relevant planning guidance specific to each mineral.			
	Provide for the maintenance of landbanks, i.e. appropriate levels of permitted reserves, for non-energy minerals as far as is practicable from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage sites.	✓	✘	✘
	Enable the minerals industry, so far as is practicable, to secure productivity growth and high and stable levels of employment, which are central to long-term economic performance and rising living standards.			
16	Bulk transportation Seek to promote and enable the bulk movement of minerals by rail, sea or inland waterways to reduce the environmental impact of their transportation.	✘	✘	✓
	Promote facilities at ports and rail links that have good communications inland, so that bulk minerals can be landed by sea and distributed from ports, as far as is practicable, by rail or water.	✓	✘	✘
	Safeguard and promote rail links to quarries where there is potential to move minerals by rail.	✘	✘	✘
17	Environmental Protection Seek to protect and enhance the character of surrounding rural and urban areas by careful planning and design of any proposals for minerals development.	✓	✘	✘
	Encourage mineral operators to adopt sound working practices to prevent/ minimise, environmental impacts to acceptable levels during the preparation, working and restoration stages.	✘	✘	✘
	Encourage mineral operators to incorporate and maintain good environmental management practices into their company procedures and apply them during the operation of their sites.	✘	✘	✘
	Require mineral operators to seek and maintain effective consultation and liaison with the local community before submitting planning applications and during operation, restoration and aftercare of sites.	✘	✘	✘
	State the criteria to be used in assessing mineral proposals and in formulating planning conditions, to ensure that permitted operations do not have unacceptable adverse impacts on the environment or human health.	✘	✘	✘
	Ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations caused by mineral extraction are in conformity with national guidance and are controlled, mitigated or removed at source, so as to reduce to an acceptable level any potential adverse impacts on neighbouring land and property.	✘	✓	✓
	Encourage the establishment of mineral site transport plans in consultation with the local community, dealing with matters including routing, off-site parking, considerate driving and complaints procedures.	✘	✘	✓
	Consider in association with the EA, the potential for mineral developments, individually or cumulatively, to affect the flow, quality and quantity of surface and groundwater supplies and the water table, taking account of best available options in preventing leachate generation and water pollution.	✘	✘	✘
	Ensure, in association with the EA, that in areas at risk of flooding, mineral extraction proposals do not have a significant adverse impact on flood flows or flood storage capacity. Operators should demonstrate that mineral working should not materially increase the risk of flooding at other properties or locations and, where practicable, should increase flood storage capacity.	✘	✓	✓
	Ensure that proposals for mineral extraction and the storage and tipping of mineral wastes are designed, and appropriate monitoring procedures set up, to ensure that the operation and restoration of the site does not create land instability and help prevent pollution of soil, air, surface water and groundwater.	✘	✘	✘

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	Ensure that proposals for mineral extraction from coastal cliffs, beaches and dune systems do not adversely affect the stability of the coastal environment, increase the rate of coastal erosion or vulnerability to flooding, or affect sensitive habitats, landscapes or Heritage Coasts.	✘	✘	
18	Efficient use Encourage the efficient use of all minerals and alternatives to them.	✓	✓	✓
	Encourage high quality materials to be used for appropriate purposes, but taking account of the need to avoid undue delays to site reclamation.	✘	✘	✘
	Minimise the amount of minerals waste produced in extraction, handling, processing and stockpiling.	✘	✘	✘
	Maximise the potential for minerals waste to be used for recycling or in-site restoration, but if not required for these purposes and where practicable, identify a market for its potential use.	✓	✘	✘
19	Restoration Take account of the opportunities for enhancing the overall quality of the environment and the wider benefits that sites may offer, including nature and geological conservation and increased public accessibility	✓	✘	✘
	Consider the opportunities that sites may offer for the development of new woodland areas and for providing networks of habitats.	✘	✘	✘
	In order to avoid the possibility of mineral working resulting in dereliction, ensure land is reclaimed at the earliest opportunity and that high quality restoration and aftercare of mineral sites takes place through the provision of guidance on suitable or preferred after-uses and reclamation standards, and the use of conditions and legal agreements, as appropriate.	✘	✘	✘
	Ensure proposals for restoration and aftercare of sites include details of appropriate phasing of progressive restoration, final landform and landscape and monitoring procedures.	✘	✘	✘
	Develop a strategy for inactive sites with planning permission for future working, which are considered unlikely to be reactivated in the foreseeable future.	✘	✘	✘
	Maintain or improve the Public Right of Way network around restored mineral sites as far as practicable.	✓	✓	✘
	Do not seek or require bonds or other financial guarantees to underpin planning conditions, except as set out in MPG7.			
	Where restoration of mineral workings is through landfill or to a wetland habitat, consult the owner or operator of civil and military aerodromes within 13km, in order to assess the likelihood of increasing the bird strike hazard.			
	Annex 1: Aggregates			
3.2	RPBs should apportion the Regional Guidelines to the local authority level in collaboration with their constituent MPAs, taking account of technical advice from the RAWPs. The apportionment should be subject to sustainability appraisal, incorporating strategic environmental assessment.			
3.3	RAWPs will undertake annual monitoring of aggregates reserves and supply and will prepare commentaries on results, especially supply and demand, for the Department and the RPBs. Where necessary, RAWPs should liaise with the Regional Technical Advisory Bodies on planning for the management of wastes.			
3.4	RPBs must have regard to the current National and Regional Guidelines for Aggregates Provision in England, in preparing RSS. They should use the process of reviewing and revising RSS to update sub-regional apportionments. If a MPA notifies the RPB that it is unable to identify sufficient resources to meet the apportioned supply over the plan period at acceptable environmental cost, the RPB should consider the consequences for supply and demand within the region taking advice from the RAWP, and consulting the Department if there are likely to be national implications. A shortfall in one part of a region should, where practicable, be made up for elsewhere in the same region.			
3.5	The Secretary of State will, where appropriate, intervene in a RSS that does not take full account of the regional aggregates guidelines and of agreed sub-regional apportionments.			

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
3.6	In preparing their LDDs, MPAs should make provision for the sub-regional apportionment of the current National and Regional Guidelines for land-won aggregate in the approved RSS or, if there is not an approved RSS, as agreed by the RPB and endorsed by the Secretary of State.	✓		✘
	Provision should take the form of specific sites, preferred areas and/or areas of search identified in LDDs. An approach to this work is set out in the MPS1 Practice Guide. Specific provision may need to be made for aggregates that meet particular or demanding specifications, such as those for high polished stone value, building or asphalting sand.	✘	✘	✘
3.9	It is important that, once identified, the main options considered for making the agreed provision are subject to sustainability appraisal before leading to a preferred option in LDDs.			
3.10	If it is not possible for a MPA to identify sufficient resources in its area to meet the apportioned supply over the plan period at acceptable environmental cost, this should be reported to the RPB as soon as possible.			
	The Secretary of State will, where appropriate, intervene in the preparation of LDDs where MPAs do not pay due regard to the agreed apportionment.			
4.1	MPAs should use the length of the landbank in its area as an indicator of when new permissions for aggregates extraction are likely to be needed. The landbank indicators are at least 7 years for sand and gravel and at least 10 years for crushed rock. A longer period may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets, and productive capacity of permitted sites. A landbank below these levels indicates that additional reserves will need to be permitted if acceptable planning applications are submitted. Because individual sites, when permitted, need sufficient reserves to be economically viable, consideration of the landbank needs to be flexible enough to allow for this. A large existing landbank bound up in very few sites should not be allowed to stifle competition.			
4.2	MPAs should consider and report on the need to review policies in their LDDs as part of their annual monitoring report to the Secretary of State. This should be done in time to allow for action before the remaining provision falls below the agreed apportioned level. If review and updating take place regularly then maintaining a landbank beyond the end of the plan period is not an issue.			
4.3	If, taking all of these matters into account, existing landbanks are judged by a MPA to be excessive: • new planning permissions should only be given where it can be shown that demand could not be met from the existing permitted reserves, for example, for reasons of type and quality of the aggregate and/or distance to the market; • the industry should consider voluntarily agreeing to revocation, or prohibition orders, in respect of planning permissions at sites that are unlikely to be worked again.			
4.4	MPAs should carry out, in consultation with the RAWPs and other relevant bodies, and publish the results of, regular reviews of sites that have not been worked for 10 years or more, to assess whether production is likely to begin again. Sites that individual operators agree are unlikely to be worked again should be excluded from the landbank calculation, and they should be made subject to prohibition orders to remove the possibility that subsequent changes in ownership could unexpectedly revive development proposals.			
	Where there is a distinct and separate market for a specific type or quality of aggregate, for example high specification aggregate, asphalting sand, building sand or concreting sand, separate landbank calculations and provisions for these may be appropriate.	✘	✘	✘
5.1	It is Government policy to encourage the greatest possible use of alternatives to primary aggregates. The National and Regional Guidelines for Aggregates Provision in England set a target that will be reviewed annually and revised when necessary. Guidance on planning for waste management is contained in Planning Policy Statement 10.			
5.2	Where mineral or other wastes suitable for use as aggregates have been deposited in tips, without the benefit of planning permission for future use, and these have revegetated and blended into the landscape, any applications for working of these materials should be dealt with in the same way and, if permitted, worked to the same standards as a successful new application for primary mineral extraction.			
6.1	It is Government policy to encourage the supply of marine-dredged sand and gravel to the extent that environmentally acceptable sources can be identified and exploited, within the principles of sustainable development.			
7.1	Identifying, assessing, operating and restoring borrow pits should be undertaken to the same standards as those for long-term mineral workings and should be subject to similar levels of consideration of environmental impacts.	✓	✘	✘
	Annex 2: Brick Clay			
3.1	MPAs should ensure that brick clay resources are safeguarded in accordance with MPS1. Some types or qualities of brickclay that have desirable properties, especially Etruria Marl and fireclay, are nationally, regionally or locally scarce. Relevant MPAs should safeguard acceptable sources of Etruria Formation clays and fireclays from other types of development and should, where racticable, encourage prior extraction of clay where built development is planned.	✓		

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
3.2	It is generally desirable that brick clay should be extracted as close as practicable to the brickworks that it is supplied to. MPAs should initially consider the potential for extraction of brick clay close to the works and the potential for extensions to existing planning permissions to maintain supplies. Where supply is needed from more distant sources these may exist in a MPA's area other than that where the brickworks is located. The relevant LPA should therefore liaise in planning for appropriate sources of provision. Where a works is likely to require supplies from more than one region, the relevant RPBs should assist in the necessary discussions.	✘		
3.3	MPAs should have regard to the need for clay supply for local use and repair of heritage buildings to meet the objectives of PPS1, and should assess the potential for environmentally acceptable extensions to, and replacements for, such sites. Policies should be proportionate to the levels of potential impacts.	✘		
3.4	When developing planning policies and considering planning applications, MPAs and LPAs should take account, as appropriate, of: • the need for provision of brick clay from a number of different sources to enable appropriate blends to be made. Where materials for blending need to be supplied from various sources, or for some types of clay that are used in small quantities for blending, it may be necessary to hold stocks of such clay at the brickworks or elsewhere; • the need to provide a stock of permitted reserves to support the levels of actual and proposed investment required for each new or existing manufacturing plant and the maintenance and improvement of existing plant and equipment. This will normally be sufficient to provide for 25 years of production. Separate provision may be needed for particularly scarce clays, such as Etruria Marl and fireclay, that will serve a number of works, sometimes over long distances; • the need to meet the likely level of demand for clay at each manufacturing plant, part or all of which may sometimes have to be fulfilled from another MPA area, to avoid having to meet unforeseen demands in environmentally damaging ways; • in some cases, the scope to use negotiated planning agreements to restrict, if necessary, the use of the clay extracted for brick making to the associated brickworks in order to reduce environmental impacts; and the need to recognise the potential for sales of clay for other uses, particularly engineering purposes, such as lining, daily cover and capping material for landfill sites, the lining of canals, lakes and ponds, as construction fill or as bulk fill suitable for roadway construction or for the manufacture of lightweight aggregate or cement. In some cases, clay pits may be operated mainly or wholly for these other purposes rather than for brick clay extraction.	✘		
3.5	Where scarce reserves of Etruria Formation clays or fireclays cannot be used when extracted, consideration should be given to the potential for stockpiling the material on an environmentally acceptable site, either on or in the ground, until it is needed. Proper account should be taken of the environmental impacts that are associated with stockpiling sites when considering whether these should be provided.	✘		
3.6	MPAs should encourage coal producers to make the best possible use of fireclay reserves including, where practicable, finding a market for any fireclay associated with the coal that is being extracted, so that it remains available for use rather than being replaced in the void during site restoration.			
3.7	Where a brickworks is supplied from a number of clay pits some distance from the works, impacts of road traffic between these and the works should, as far as possible, be minimised through off-road transport, such as field conveyor systems, dedicated haulage routes, and careful consideration of distribution networks and vehicle routes.	✘		
3.8	MPAs should liaise with the Environment Agency and LPAs to ensure that where planning conditions for manufacturing plant are necessary they should complement, not duplicate, conditions contained in IPPC permits.			
	The brick, clay pipe and clay tile manufacturing industry is encouraged to ensure that: • when clays are to be blended, the resulting blend should not contain a proportion of premium clays in excess of that needed for the specified use.	✘		
	Annex 3: Natural building and roofing stone			
3.1	RPBs and the Mayor of London should set out policies in their RSSs or the Spatial Development Strategy in London, for safeguarding nationally, regionally and locally significant building stone resources.			
3.3	Many important sources of building stone have been long disused, and would need a new planning application to be worked again. Important historic quarries should be safeguarded, as far as practicable, where it can be shown: • that the quarry was the original source of stone used in the construction of a historic building or monument; or • that the stone is technically compatible with material in the structure to be repaired; and • that stone from the quarry is, or will be, required for restoration or conservation purposes in the absence of viable alternatives.			
3.4	MPAs should consider whether small-scale extraction of building stone might be sustainable at, or close to, relic quarries, some of which have been designated in respect of industrial archaeology, wildlife and geological conservation, where small scale extraction would contribute to repair of historic buildings without compromising the requirement to protect designated site.	✘		

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	Any extraction and restoration proposals should have proper regard to the purposes of the designation both during and after extraction.			
3.5	LPAs should notify Natural England and English Heritage when a development proposal is made which affects an old building stone source to provide an opportunity for its significance to be assessed.			
3.6	MPAs and LPAs should have regard to the local, regional and national need for certain building and roofing stones for the conservation and restoration of England's historic built environment where their use is specified: • because of aesthetic or technical properties, particularly where English Heritage advises that stone used for restoration or conservation purposes must be a compatible match, usually from a similar lithological horizon as the stone that was originally used; • to help meet the objectives of PPG15.	✘		
3.7	MPAs and LPAs should liaise on and have regard to the local, regional and national need for certain building stones for new construction, within the context of the RSS, where their use is specified because of: • proven durability; • aesthetic or technical properties, particularly where new construction is to take place in the midst of older buildings constructed of a certain stone; and • any design requirements set out in local design guides, planning policies and supplementary planning documents.	✘		
3.8	Where an exact match of stone is not possible, potential alternative sources of supply, if any, should be considered.			
3.9	MPAs should, as far as is practicable, identify in their LDDs, quarries of importance to the built heritage, whether disused or active, and describe the approach to be taken to these in terms of minerals and other planning applications.	✘		
3.11	Each proposal needs to be considered on the basis of its specific characteristics and potential environmental and landscape impacts, and: • whether formal environmental assessment under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 ("the 1999 EIA Regs") is justified for proposals to develop and operate small stone quarries; and • where proposals to re-activate dormant quarries are submitted, MPAs/LPAs will, under the Reviews of Interim Development Order permissions and Old Mineral Permissions (under the Planning and Compensation Act 1991 and Environment Act 1995 respectively), have to consider updated operating and restoration conditions for the working of the quarries. Similarly, updated conditions for all active quarries will need to be considered as part of the periodic review process under the 1995 Act.			
	…High quality stone suitable for building and/or roofing, particularly that which is scarce and may be required for future conservation work, should not be used for the production of aggregates where lower quality rock suitable for crushing would suffice.	✘		
3.14	MPAs, LPAs and minerals operators should consider carefully, in liaison with Natural England and English Heritage, the potential for partial restoration of building stone quarries before the expiry of planning permission for extraction. This should be linked, where practicable, to new opportunities for archaeological, geological, wildlife and industrial heritage conservation and education, but retaining, where practicable, the potential for future access to supplies of small quantities of stone that may be needed at intervals in the future for repair of the historic built environment for which the site in question is an appropriate source.			
	Annex 4: On-shore oil and gas and underground storage of natural gas			
3.1	The industry should make available to MPAs information on the extent of known reserves of oil and gas, its forward plans and any potential sites for exploration, appraisal or production that it is considering and for which it holds exploration or production licences. However, MPAs should note that much of this information may be commercially sensitive.			
3.2	Conventional oil and gas development broadly consists of 3 phases- exploration, appraisal and production. RPBs should set clear guidance and criteria for location of Conventional oil and gas development (COG) development sites within the areas that are licensed for oil and gas exploration or production. MPAs should include policies in their LDDs that distinguish clearly between the three phases and should also identify any environmental and other constraints on production and processing sites, within areas that are licensed for oil and gas exploration or production, in those documents.			
3.4	Seismic Investigations Permitted Development Rights should not be withdrawn without very good reasons.			

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
3.5	In all cases the industry should fully discuss its proposals with the LPAs and statutory agencies. MPAs and highway authorities should be informed of the intended route for the survey, and prior notification given to residents on the immediate survey route. In two-tier planning areas, where county councils are the MPAs, operators should also ensure that district councils are aware of the intended investigations, and their commencement dates.			
3.7	Drilling Policies should be drafted to ensure that each application to explore will be considered on its own merits, in accordance with the present guidance, and in relation to LDDs and any other relevant material considerations. These considerations should not include any hypothetical future proposal for development of the oil or gas resource.			
3.8	In submitting an application for drilling, the developer should indicate what knowledge has been gained from seismic investigations in selecting the well site. Policies should indicate that, subject to the effects on the environment being appropriately addressed and mitigated, and a satisfactory restoration and aftercare plan prepared, applications for exploration may be favourably considered.			
3.9	Where environmental or other conditions might preclude vertical drilling, MPAs should discuss with the industry the option of employing directional drilling. LDD policies should make clear that this approach will be adopted and that careful consideration will be given to factors such as: • the need for night-time drilling for safety reasons; • locating sites to minimise visual intrusion; • controlling vehicular activity and vehicle routing; • controlling the disposal of mud and other drilling residue; and • controlling noise and light emissions from drilling rigs with particular reference to night-time operations.			
3.10	Section 106 agreements should not duplicate planning conditions or conditions attached to the award of a licence by DTI.			
3.11	Because of the intrusive nature of drilling operations, policies should provide that these will not be permitted close to houses and other noise-sensitive properties unless noise levels from drilling and associated operations can be reduced to acceptable levels.			
3.12	Particular care should be taken about siting all types of oil and gas wells close to water supply wells or boreholes.			
3.13	Appraisal As with all other forms of development, an application for an appraisal well must be considered on its merits. This consideration should take into account the long-term suitability of the site since such wells may subsequently be required for production purposes. The other factors listed above for exploration wells are equally relevant to appraisal wells. LDD policies should reflect this.			
3.14	Production and Distribution Gathering stations should not be sited where they would have unacceptable adverse environmental impacts.			
3.15	Pre-application discussions between the MPA and the industry on potential production proposals are essential. For the larger finds, it will be particularly important to establish how far the envisaged surface production facilities would be sufficient to handle the expected output from the find, or related finds as a whole.			
3.16	Policies should make clear that conditions are likely to be imposed governing, amongst other matters: • timing and method of gas flaring, (also controlled by DTI under the Energy Act 1976); • access; • the direction of vehicles leaving the site; • noise emissions; • prevention of pollution associated, for example, with possible spillages; • the means of disposal of unwanted gas; and • the method by which the end product is to be transported from the well site or gathering station.			

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
3.17	Operators should address all of these points in their planning applications and, where necessary and appropriate, in supporting environmental statements. Where possible, export terminals should be sited where they can feed into a long distance pipeline, or are connected to a railway or water transport, in preference to relying on road transport.			
3.18	Where pipelines are to be used for transporting extracted oil and gas it will be necessary for operators to obtain consent from the appropriate authorities (the relevant MPAs, the Environment Agency and the Health and Safety Executive) for routes, vehicle access, the location of machinery storage areas, and of pipes, pipelaying equipment and other construction materials. In drawing up proposals, operators should avoid environmentally sensitive locations and take account of any potential impacts on nature conservation, for example the movement of animals. Proposals should also take into account the possible implications for agricultural activities, consulting where necessary with associations that represent agricultural interests.			
3.19	For pipelines less than 10 miles in length, planning permission is required from the MPA. Longer pipelines require authorisation from the SSTI under the Pipelines Act 1962, although the usual planning and environmental considerations would be taken into account. The views of the LPAs, the Environment Agency, Natural England, the Health and Safety Executive, landowners and tenants should be sought. Also, a full environmental impact assessment statement would normally be required. On granting authorisation, the SSTI would then direct that planning permission for the pipeline shall be deemed to have been granted. In all cases, it is essential that land affected by pipeline development should be properly restored.			
3.21	Coalbed methane (CBM) MPAs should identify in their LDDs the extent of the coalfield with reserves at depths below the surface of between 200-1500m and of areas which are licensed for CBM by the Coal Authority. The LDDs should also list the principal constraints likely to affect any proposed production and processing sites within those areas.			
3.22	LDDs should make it clear that planning permission for exploration and appraisal does not carry with it any presumption that long-term production from those wells, or that the development of further wells, will be permitted.			
3.23	The main environmental impacts associated with CBM development are similar to those for COG. However, particular attention should also be given to the abstraction of any groundwater and its impacts, as well as the disposal of water produced during well stimulation and production of gas. The Environment Agency must be consulted and the relevant permission(s) obtained before any disposal or abstraction takes place.			
3.24	Accordingly, LDD policies should indicate that: • where initial proposals are environmentally acceptable and accord with the principles of sustainable development, planning permission might be granted for the initial hub of exploration wells, subject to their removal and restoration, if gas is not found in commercially viable quantities (or they are not needed to keep pumping water to protect production from an adjoining gas area); • this does not extend to the later approval of detailed schemes for production from those wells should the occasion arise; • options for the further development of the area should be presented for consideration in principle at the same time, to ensure that the immediate and potential longer-term environmental impacts of the development are understood by the MPA and that the applicant is aware of the risk of a subsequent refusal of planning permission; • further hubs of wells for the exploration, appraisal or later production phases will require separate applications and permissions on the same basis, supported where necessary by an environmental statement (or supplementary statement) related to the further development for which permission is sought; and • the industry should therefore discuss its proposals fully with the MPA well before a formal planning application is made, so that all the options and longer-term issues can be properly considered.			
3.25	MPAs in coalfield areas should, therefore, encourage capture and use by including appropriate policies in their development documents.			
3.27	Underground coal gasification DTI has examined the opportunities for UCG and its potential contribution to the future UK energy supply. If this source of energy is to be exploited then an experimental UCG development would need to be undertaken. If any such experiment were to be proposed in England, it would be subject to all the usual planning procedures including the Secretary of State's power to call-in applications for her own determination.			
3.28	Because of the absence, so far, of any UCG development in the UK, the technique is not referred to in the Schedules to the 1999 EIA Regulations or the accompanying Circular 02/99.3 However, if a MPA were to receive a pre-application enquiry regarding a UCG proposal it should pay close attention to the potential environmental impacts, both above and below ground, in considering whether an environmental impact assessment is required. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.			

Paragraph	MPS1 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
4.4	Underground Storage of Natural Gas Therefore, county and district authorities in areas that have underground gas storage potential should discuss this issue and agree coherent policies for dealing with applications. When applications are submitted, these authorities should agree which are county council matters and which are not, depending on the circumstances of the application, including all the development that is proposed. Unitary and National Park authorities should also, where appropriate, develop planning policies for dealing with applications for underground gas storage.			
4.5	MPAs should consider whether there is a need for policies on underground gas storage in their LDDs on the basis of local geological circumstances. Where appropriate, MPAs and LPAs should collaborate in developing these policies, and areas where there might be potential for such storage should be indicated in their LDDs.			
4.6	MPAs should take account of matters concerning surface and underground development associated with gas storage that are material to the determination of the planning application			
4.7	General issues that should also be taken into account are: • that Government welcomes proposals to increase flexibility in the UK gas market, but is not prescriptive about how this is to be achieved. Proposals are a commercial matter for the market; • the national energy policy benefit of the proposal; • the likelihood that suitable onshore locations for gas storage will be very limited in number, due to the lack of suitable geographical features for underground gas storage, so that alternative possibilities may not be available; • the acceptability of proposals and measures to mitigate the potential environmental • impacts of exploration and development of the proposed facility, in terms of both the surface and subsurface works; and the integrity and safety of underground facilities especially in terms of maintenance of the pressure regime, the prevention of leakage of gas and the avoidance of pollution.			
4.8	It is likely that most applications for significant gas storage facilities will require environmental impact assessment. Applications and any accompanying environmental statements should include adequate information on the suitability of proposed sites for secure and safe containment of gas or the means of making them so, and the avoidance and control of pollution. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.			
4.9	Applicants should confirm with the MPA whether hazardous substances consent under the Planning (Hazardous Substances) Act 1990 is required. The Health and Safety Executive are statutory consultees in the process and would be consulted on whether there are safety grounds for refusal of applications.			

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND

Paragraph	MPS2 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
9	An environmental assessment of an extension or a modification to an existing site should concentrate on the effects of the proposed modification, and take into account operations on the existing site affected by the modification. The assessment should consider if the modification could lead to a level of environmental impact that would be unacceptable for the site as a whole, or if the proposed extension would bring the perimeter of the site closer to existing communities (thereby changing the nature or degree of the impact on existing communities)			
10	Policies and proposals in development plans have a key part to play in meeting the Government's objectives of ensuring that development and growth are sustainable. They should have regard to Planning Policy Statement 1 (PPS1): Delivering Sustainable Development (2005) and Minerals Planning Guidance Note 1 (MPG1): General Considerations and the Development Plan System (1996) (currently under review) which provide advice on planning policy for Local Planning Authorities (LPAs), MPAs and the minerals industry. When, as expected, MPG1 is replaced by Minerals Policy Statement 1 (MPS1), similar regard should be given to this successor document.	✘	✓	✓
11	Development plan policies and proposals for minerals extraction and associated development should take into account: • the impacts of mineral working, such as visual intrusion, dewatering, water pollution, noise, dust and fine particulates, blasting and traffic; • the impacts on landscape, agricultural land, soil resources, ecology and wildlife, including severance of landscape and habitat loss, and impacts on sites of nature conservation, archaeological and cultural heritage value; • the benefits such as providing an adequate supply of minerals to the economy and hence for society (including construction materials needed for the development of national infrastructure and the creation of sustainable communities), creating job opportunities, and the scope for landscape, biodiversity and amenity improvements through mineral working and subsequent restoration; and • the methods of control through planning conditions or agreements to ensure that impacts are kept to an acceptable minimum.	✓	✓	✓
12	Policies and proposals should take into account the level of existing activity and impacts, the duration and nature of proposals for new or further working, and the extent of impacts which a particular site, locality, community, environment or wider area of mineral working can reasonably be expected to tolerate over a particular or proposed period. With respect to an individual site, the effect of all relevant impacts (i.e. of noise, dust, traffic, on landscape etc.) should be considered objectively. Impacts that are acceptable individually should not be regarded as unacceptable in combination without a proper assessment. MPAs should also have regard where relevant to cumulative impacts of simultaneous and/or successive working of a number of sites in a wider area of commercially-viable deposits. These may affect communities and localities over an extended period, depending on the nature, age and size of the site(s) (see paragraphs 24–29).	✓	✘	✘
13	Other development plan policies should ensure that development other than mineral extraction does not encroach on existing mineral operations, thus subjecting that development to a level of environmental impact that may be unacceptable and leading to complaints about the adequacy of planning conditions for the mineral operation concerned.			
14	Before applications are submitted to an MPA for determination, developers should discuss their proposals with the relevant local authorities and any other organisations whose interests may be affected by the proposed development. They should consult the Environment Agency and/or the local authority as regulator in respect of any pollution control requirements. Issues such as noise, traffic, dust, blasting, drainage, access arrangements, working methods, pollution control, landscape, restoration, after-use and stability should be discussed with the appropriate bodies prior to making an application. Developers should consult the Environment Agency to evaluate the hydrological, chemical and ecological impact of any workings on groundwater and surface water supplies.			
	MPAs and developers and their advisers should have regard to the general advice on the use of planning conditions in DOE Circular 11/95 The Use of Conditions in Planning Permission, the advice on planning conditions specific to mineral permissions in Minerals Planning Guidance Note 2 (MPG2): Applications, Permissions and Conditions (1998) and the advice on planning obligations in DETR Circular 01/97 Planning Obligations and any subsequent advice that may be issued which updates and revises these documents.			
	MPAs should ensure planning conditions are enforceable. They must be precise, capable of being monitored (infringements must be detectable), defined sufficiently for breaches to be provable, necessary, relevant to planning and to the development, and reasonable. The two principal types are: • performance requirements; and • the use of specific ameliorative measures.			
21	Performance Requirements Effective planning requires judgements based upon local circumstances and local objectives. MPAs should set out measurable performance requirements, such as noise or vibration limits, that make clear to operators what is expected of them so they can make their own decisions on the most cost effective way of meeting those criteria, while	✘	✘	✘

Paragraph	MPS2 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	allowing outcomes to be monitored. MPAs should not specify methods for securing compliance that could inadvertently and unreasonably prejudice the flexibility of the operator's working methods and profitability. Performance requirements should usually be designed to: • achieve a minimum environmental quality; • limit degradation of the environment; and • encourage improvement.			
	MPAs should also have regard to the possibility in some situations of requiring the operator to provide accessible monitoring systems, and making audited reporting by the operator (e.g. under an EMS), a condition of the permission. Where appropriate, MPAs and operators should seek to reach planning agreements with owners of sensitive properties to ensure access for monitoring purposes.			
	Amelioration Measures These should be specified as planning conditions to mitigate adverse effects where there is difficulty in defining a performance criterion which can be readily monitored and enforced.			
	MPAs should ensure that the adverse effects of mineral working on neighbouring communities are minimised.			
	Residents living close to mineral workings may be exposed to a number of environmental effects. MPAs must take particular care in respect of any conditions they attach to a grant of permission for working in proximity to communities…Dialogue should take place between MPAs, EHAs, operators and other stakeholders, especially in the local community, to determine appropriate mitigating measures, where these are feasible and would, if applied, allow the development to proceed.			
	The programme of work and/or the location of plant within the mineral working should take account of the proximity to occupied properties, as well as legitimate operational considerations. A programme of work should be agreed which takes account, as far as is practicable, of the potential impacts on the local community over the expected duration of operations.			
	In such cases, MPAs should consider the need to require adequate separation distances. MPAs should require a distance that is effective but reasonable, taking into account: • the nature of the mineral extraction activity (including its duration); • the need to avoid undue sterilisation of mineral resources, location and topography; • the characteristics of the various environmental effects likely to arise; and the various amelioration measures that can be applied. Working in proximity to residential property may be necessary where there are clear, specific achievable objectives such as the removal of instability and preparing land for subsequent development. Such working should be for a limited and specified period, without scope for extension.			
	In these circumstances, the MPA should consider both the need for long-term planning to avoid unnecessary sterilisation of resources, and how the combined impacts at individual sites and the cumulative impacts of further working of the mineral in a particular area can be reconciled with the need to protect localities and communities from unacceptable consequences of that working (e.g. by the number and timing of permissions, the phasing of workings and restoration, and the attachment of conditions to mitigate impacts).			
	Meanwhile the First Secretary of State looks to all LPAs and to mineral operators to follow the policies it sets out. They should ensure that the environmental impacts of mineral workings are minimised and controlled, and foster good community relations between mineral developers and operators and those living close to mineral workings.			
	MPS2: Annex 1: Dust			
	In formulating plans for mineral extraction or related activity and appraising mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused. The Government looks to the minerals industry to keep dust emissions at a level that reflects high environmental standards and to work for continuous improvement based on best available techniques (BAT).			
	Planning conditions on dust should not duplicate controls placed on the developer under the relevant pollution control regime.			
	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action, and MPAs should take due account of this in their decisions on individual applications. MPAs and operators should liaise with the relevant pollution control bodies (i.e. the Environment Agency and Local Authority (LA) Environmental Health Departments) in considering and making decisions on individual applications.			

Paragraph	MPS2 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	The key planning principle is that dust emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should include appropriate proposals for the control and/or mitigation of dust emissions. Those making development proposals should carry out an appropriate dust assessment study (see Appendix 1C), and MPAs should consider the results of such a study to: • establish baseline conditions of the existing dust climate around the site of the proposed operations; • identify site activities that could lead to dust emission without mitigation; • identify site parameters which may increase potential impacts from dust; • recommend mitigation measures, including modification of site design; and • make proposals to monitor and report dust emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.			
	For the meantime, LAs should use the objective to assist in their longer-term planning.			
	When PM10 impact is found to be significant in planning terms but, on balance, does not merit refusal of an application, procedures to monitor and control PM10 should be adopted.			
	Because the activities identified are common to all mineral sites, the Government considers that the research recommendations should be extended to cover all types of mineral workings. In doing so, it recognises that the research was specific to opencast coal sites, which involve significantly more earthmoving than most other mineral workings. The materials excavated also vary with the mineral being worked. In addition, certain quarry processes are controlled under Part I of the EPA 1990 (see Secretary of State's Guidance – Quarry Processes PG3/8/96, DOE 1996) and now, by the PPC Regulations, and it would be for the pollution control system to control dust emissions from these. These factors need to be incorporated into the assessment of potential impact from PM10.			
	The potential impacts of opencast and other mineral activities on particular sites should be highlighted at the scoping stage of a planning application (see Appendix 1C). This should identify any special requirements for the environmental impact assessment (EIA). The likely number and frequency of predicted exceedences of the AQOs, together with the proximity of operations to residential property and other sensitive uses should constitute a major part of the EIA and the weight this should be given in balancing the benefits of the site against potential impacts. The Arup research (see paragraph 1.2) defined 'remote' as more than 1000m from any residential property or sensitive use (see Table 1A2 in Appendix 1A). The Newcastle research also identifies 1000m as an adequate cut-off point for considering whether additional measures to control PM10 should apply. In deciding a cutoff point for individual proposals, MPAs should also consider whether the topography, the nature of the landscape, the respective location of the site and the nearest residential property or other sensitive use in relation to the prevailing wind direction and visibility may justify the distance being tailored to local circumstances, and hence whether a greater or lesser distance may be justified.			
	If within a site the actual source of emission (e.g. the haul roads, crushers, stockpiles etc.) is within 1000m of any residential property or other sensitive use, then a further assessment should examine the likely impacts and the weight they should be given in the decision making process.			
	Previously-measured data should be used in the first instance. Where relevant data is not available, site-related monitoring may occasionally need to be undertaken. The length of monitoring period, the methodology, the number of observations and different weather conditions should be carefully considered (see paragraph 1.9: detailed guidance on monitoring is provided in the LA's Technical Guidance on Review and Assessment (LAQM.TG(03)).			
	MPAs should set out in their local or minerals development documents (or in their mineral plans where these are still in preparation) their policies on dust from surface mineral operations. Plans and policies should contain guidance on those considerations related to dust emissions and control that will be taken into account in assessing planning applications, whilst recognising the range of control and mitigation measures available, including those under Part I of the EPA 1990. They should outline the criteria against which they will assess the environmental acceptability of the expected dust emissions from a proposed surface mineral operation or review the conditions on existing planning permissions. Other mineral policies relevant to the general mitigation of environmental effects and good practices are also likely to be relevant to the control and mitigation of dust including those relating to separation distances, landscaping and screening.	✘	✘	✘
	When considering applications for new mineral development or reviewing conditions on existing permissions, MPAs should have regard to the environmental acceptability of the likely dust emissions, including the cumulative impact at residential properties and on other sensitive uses. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development, together with proposals for appropriate control or mitigation.			
	The control and mitigation of dust (as with other environmental impacts) should be discussed between the mineral operator and the MPA and the LA Environmental Health Department before an application is submitted. This will ensure that all parties are fully aware of all the issues and avoid delays in processing the application.			
	MPAs and mineral operators should ensure appropriate consultations and effective liaison with all stakeholders, including statutory consultees and the local communities potentially affected by dust emissions. In particular, they should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health			

Paragraph	MPS2 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	officers (EHOs) of the area concerned, as the regulator for quarry processes under the EPA 1990.			
	MPAs should assess the findings from a dust assessment study carried out by the applicant (see Appendix 1C) when determining planning applications or when considering conditions to attach to planning permissions. Pre-planning discussions should have addressed the principal matters relating to the design and layout of the site and these should be reflected in the plans and details of workings.			
	MPAs should consult the EHO for the area on the effects of dust emissions and the adequacy of proposed control and mitigation measures. Where the effects of dust emissions cannot be adequately controlled or mitigated, permission should be refused. MPAs should confirm the residential properties and other sensitive uses that might be affected and the effects of the proposals on them. MPAs should consider the need for, timing, length and frequency of temporary, dusty activities that are outside normal operations, but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.			
	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way as to minimise dust emissions at the source and thereby to control them to acceptable levels. Planning conditions should not duplicate or conflict with any requirements imposed on quarry processes under Part I of the EPA 1990. MPAs should seek to identify the most appropriate control measures to address specific potential dust problems, and attach planning conditions to consents which are precise and unambiguous. The wording of the condition should make it clear as to when and where the control, or mitigation of dust, is necessary. Conditions should be worded in such a way that contraventions are easy to identify and enforcement action can be readily undertaken if necessary.			
	Planning conditions that seek to mitigate dust through the use of water bowsers or sprays are frequently used by LAs, especially with regard to haul roads. Wherever possible, they should be specific about where and when water bowsers or sprays should be used. The condition could also specify that a chemical dust suppressant or a wetting agent be added to improve dust control. These sorts of condition require liaison with the relevant statutory consultee, in this case the Environment Agency.			
	The Government looks to the minerals industries to keep dust emissions at a level that reflects the highest environmental standards, to work for continuous improvement based on BATs and to reflect the principles set out in this Annex in framing proposals for new development and in reviews of conditions. It expects MPAs to have regard to the principles of this Annex in considering the impacts of dust on the environment and the local community in the Minerals Local Plan (and in future local and minerals development frameworks), and in determining applications and reviewing conditions on existing permissions.			
	MPS2: Annex 2: Noise			
2.1	In formulating plans for mineral extraction or related activity and designing mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused.	✘	✘	✘
2.2	The Government looks to the minerals industry to keep noise emissions to a level that reflects the highest environmental standards and to work for continuous improvement. Its policy is to secure reduced noise emissions in both urban and non-urban areas and at noise-sensitive areas and properties…MPAs and others concerned with mineral development should have regard to the national noise strategy, on which the Department for the Environment, Food and Rural Affairs (Defra) consulted in 2001. This aims to map the main sources and areas of noise in order to identify tranquil areas that are to form a national resource, to comply with EC Directive (2002/49/EC) Assessment and Management of Environmental Noise.			
2.3	Most noise from mineral operations is created by equipment used for extraction and processing. MPAs and mineral operators should have regard to EC Directives 98/37/ECm('The Machinery Safety Directive') and 86/662/EC (Limitation of Noise Emitted by Hydraulic Excavators, Rope-operated Excavators, Dozers, Loaders and Excavator-loaders), which seek to reduce noise emissions from mobile plant and dump trucks. These do not apply to plant with a power rating in excess of 500kW or to a fixed plant. A proposed Directive (Noise Emission in the Environment for Equipment for Use Out of Doors), which is likely to come into force in 2005, indicates a further reduction in noise emissions for a range of tracked and wheeled plant. MPAs should be aware of the need to take account of this Directive when considering new applications and reviewing existing permissions after its implementation date. The Government will consider the need for appropriate supplementary guidance on this in due course.			
2.4	Planning conditions on noise should not duplicate controls placed on the developer under the relevant pollution control regime.			
2.6	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action and except that MPAs will take due account of this in their decisions on individual applications.			
2.7	The key planning principle is that noise emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should, therefore include appropriate proposals for the control or mitigation of noise emissions. Those making development proposals and planning authorities considering such proposals should, therefore: consider the main characteristics of the production process and its environs, including the location of noise-sensitive properties; make and consider proposals to minimise, mitigate or remove noise emissions at the source using best available techniques (BAT) in accordance with the European Commission's BAT Reference Documents, taking account of the control of some quarry processes under the PPC Regulations; assess the existing noise climate around the site of the proposed operations, including background noise levels at nearby noise-sensitive properties; estimate the likely future noise from the development and its impact on the neighbourhood of the			

Paragraph	MPS2 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	proposed operations; monitor noise emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.			
2.9	Emissions assessments should identify all sources of noise and, for each source, consider the proposed operating locations, procedures, schedules and duration of work for the life of the operation. They should consider what emissions are likely to arise and indicate how and where efforts have been made to control, mitigate or remove these at source. The level and character of the existing noise environment and the location of noise-sensitive properties will enable the necessary noise level goals to be incorporated in the design of proposed operations. Monitoring is required to compare changes in noise level and character caused by the operation to the design goals and to manage them in order to achieve those goals. There must be effective liaison with the affected community, and complaints should be dealt with promptly.			
2.10	MPAs should set out in their local development documents, policies on noise from surface mineral operations. They should outline the criteria against which they will assess the environmental acceptability of the expected noise emissions from a proposed surface mineral operation, or in reviewing the conditions on existing planning permissions. They should set out the noise limits they will apply in principle and any flexibility entailed in their application. The minerals (or successor) plan should also indicate the extent of technical information required in support of an application.	✘	✘	✘
2.11	In identifying areas of search and/or proposed sites for mineral working, MPAs should take account of any information on the existing local noise climate, particularly in areas of tranquillity that should be preserved as part of the national resource. For existing mineral operations, whether or not currently subject to conditions relating to noise, MPAs should consider whether the introduction of buffer zones to separate the mineral operation from existing and possible future noise-sensitive development could be helpful.			
2.12	When considering applications for new development or reviewing conditions on existing planning permissions, MPAs should have regard to the environmental acceptability of the likely noise emissions, including the cumulative impact at noise-sensitive properties. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development together with proposals for appropriate control or mitigation.			
2.13	Discussions on the issues relating to noise (and other environmental impacts) should take place between the mineral operator and the MPA and the local authority (LA) environmental health department before an application is submitted. Developers should also consult the Environment Agency or the LA as the regulator under the PPC Regulations.			
2.14	MPAs should ensure that operators are aware of the need for and provide all the required technical information. They should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned alongside their own expert advisers. MPAs and operators should ensure that there are appropriate consultations and effective liaison with the community likely to be affected by noise emissions.			
2.15	Where an EIA is required (DETR Circular 02/99 Environmental Impact Assessment), it should identify the actual working noise emissions from all equipment to be used on site, having regard to established good practice. It should establish the threshold at which significant effects from noise emissions will be likely in or near environmentally-sensitive locations, and demonstrate that emissions can be successfully maintained below this threshold. Sensitive locations include sites carrying national and international environmental designations. The significance of effects from noise should be considered in the context of existing development. The additional impacts of site-attributable noise emissions at noise-sensitive properties should be established.			
2.16	When considering applications, MPAs should ensure that operators have provided the required technical information and considered all reasonable options to minimise noise at source. In the light of the existing noise climate of the locality, they should consider the cumulative effects of noise emissions. MPAs should consult the EHO, as the pollution control regulator for the area, and other relevant stakeholders (e.g. English Nature for sites designated for nature conservation value) on the effects of noise emissions, and the adequacy of proposed control or mitigation measures. Where the effects of noise emissions cannot be adequately controlled or mitigated, permission should be refused.			
2.17	When considering granting permission, MPAs should establish what noise-reduction practices will be used and what their effects will be. They should identify all noise-sensitive properties that might be affected and what the effects of the proposals will be on them. MPAs should consider the need for, timing, length and frequency of temporary noisy activities that are outside normal operations but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.			
2.18	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way that noise emissions are minimised at the source and thereby controlled to acceptable levels.			
2.19	Planning conditions should be used to apply absolute controls on noise emissions with limits normally being set at particular noise-sensitive properties (the terms used are defined in Appendix 2A). This enables the effect of noise to be related most directly to its impact on local people. In some circumstances, however, it might be more appropriate to set the limits at the site boundary or some other point. Subject to a maximum of 55dB(A)LAeq,1h (free field), MPAs should aim to establish a noise limit at the noise-sensitive property that does not exceed the background level by more than 10dB(A). It is recognised, however, that this will in many circumstances, be difficult to achieve without imposing unreasonable burdens on the mineral operator. In such cases, the limit set should be as near that level as practicable during normal working hours (0700-1900) and should not exceed 55dB(A) LAeq,1h (free field). Evening (1900-2200) limits should not exceed background level by more than 10dB(A) and night-time limits should not exceed 42dB(A) LAeq,1h (free field) at noise-sensitive dwellings.Where tonal noise contributes significantly to the total site noise, it may be appropriate to set specific limits for this element. Peak or impulsive noise, which may include some reversing bleepers, may also require separate limits that are independent of background noise — e.g. Lmax in specific octave or third-octave bands — and should not be allowed to occur regularly at night.			

Paragraph	MPS2 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
2.20	Increased temporary daytime noise limits of up to 70dB(A) LAeq1h (free field) for periods of up to 8 weeks in a year at specified noise-sensitive properties should be considered to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this will bring longer-term environmental benefits to the site or its environs. Where work is likely to take longer than 8 weeks, a lower limit over a longer period should be considered. In some wholly exceptional cases, where there is no viable alternative, a higher limit for a very limited period may be appropriate in order to attain the environmental benefits. Within this framework, the 70 dB(A) LAeq1h (free field) limit referred to above should be regarded as the normal maximum. LAs should look to operators to make every effort to deliver temporary works at a lower level of noise impact. Operators should seek ways of minimising noisier activities and the noise emissions from them when designing the layout and sequencing of temporary operations, and should liaise with local residents prior to such operations taking place.			
2.21	Conditions on planning permissions should identify the noise-sensitive properties at which the noise limits are set, including the relative sensitivity to noise, which may result in different limits for different types of property, and establish a scheme of monitoring that identifies how, where and when noise is to be measured, who should be responsible and how the results will be assessed and used. Alternatively, a condition should be attached requiring a scheme of compliance noise monitoring to be submitted to and approved by the MPA.Where necessary, the MPA should seek to use Agreements under Section 106 of the Town and Country Planning Act 1990, as amended, to ensure access to noise-sensitive sites for monitoring purposes. Conditions should also be used to secure effective procedures for dealing with complaints. Planning obligations can help to ensure continued effective liaison with the local community and others affected by noise emissions.			
2.22	Monitoring, in accordance with an agreed scheme, should normally be carried out in the free field at noise-sensitive properties and should pick up all noise from static and mobile sources that could affect the property. Where monitoring has to be conducted near the façade of a building, the microphone should be located 1m from the façade at a height of 1.2–1.5m above the ground and a 3dB façade reflection correction should be applied. If monitoring has to be other than at the noise-sensitive property, the noise limit must be converted into equivalent noise limits at the monitoring points using the noise-prediction technique in Part 1 of BS5228 Noise and Vibration Control on Construction and Open Sites (1997).			
2.23	Equipment used for monitoring should correspond to that specified in BS-EN 61672-1 Electroacoustics, Sound Level Meters, Specifications (2003), capable of measurement in LAeq,1h and be calibrated before and after use.Where it is not possible by use of the pause button to exclude extraneous noise not directly attributable to the operation being monitored, an appropriate allowance should be made. Guidance on this is contained in BS4142 Method of Rating Industrial Noise Affecting Mixed Residential and Industrial Areas (1997).			
2.24	Monitoring should be undertaken during normal production working hours and should avoid meal times and periods of plant maintenance or breakdown. Measurements should ideally be taken in calm conditions or where there is a component of wind blowing from the site towards the measurement location. However, at many sites, such conditions may be rare. BS4142 suggests that measurement should be avoided in conditions of wind speeds greater than 5m/sec, rain and temperatures less than 3°C. BS4142 also requires that a record be kept of weather conditions prevailing during all measurements. Where noise monitoring is undertaken when weather conditions are not ideal and noise levels appear to be of concern, the impact of weather conditions on ambient noise should be considered as well as noise propagation from the site.			
2.25	The detailed requirements for monitoring (location, period and frequency) should be decided on a site-specific basis as part of the monitoring scheme, taking account of any monitoring required under the terms of any authorisation for quarry processes under the PPC Regulations. Unnecessarily onerous requirements should be avoided. Conditions should require operators to report periodically to the MPA on the results of monitoring and to inform it as soon as possible if there is evidence of the limits being breached, including an explanation and a statement of action to remedy it. MPAs and/or EHOs should carry out periodic checks of permitted sites in their areas, particularly if complaints are received, and inform the operator and complainants of the results. If monitoring demonstrates that noise limits continue to be exceeded,MPAs should consider what enforcement action would be appropriate.			
2.26	The Government looks to the minerals industries to keep noise emissions at or below the levels set out in this Annex, and to use BAT to reduce the impact of noise from their operations. It expects MPAs to have regard to the principles of this Annex in considering the impacts of noise on the environment and the local community in the minerals and waste development plans, the development documents that will succeed these and in determining applications and reviewing conditions on existing permissions.			

MPG3: COAL MINING AND COLLIERY SPOIL DISPOSAL

Paragraph	MPG3 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
8	National Land Use Policy Considerations In applying the principles of sustainable development to coal extraction, whether opencast or deep-mine, and to colliery spoil disposal, the Government believes there should normally be a presumption against development unless the proposal would meet the following tests: i. Is the proposal environmentally acceptable, or can it be made so by planning conditions or obligations? ii. If not, does it provide local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission? iii. In National Parks and AONBs, proposals must also meet the additional tests set out in paragraphs 28 and 29 below. iv. Proposals within or likely to affect and National Nature Reserves (NNRs) must meet the additional tests set out in paragraphs 30 and 31. v. Proposals within the Green Belt must meet the additional test in paragraph 36 below. MPAs should ensure that this general approach is incorporated into their development plan policies as soon as possible. The Government recognises that the costs and benefits of an opencast proposal can best be assessed by the communities and local authorities who know the area best and are most directly affected. Accordingly the Government takes the view that, subject always to local plan procedures, normal rights of appeal and the provisions of this guidance, MPAs' assessments of the environmental acceptability or otherwise of individual proposals should normally prevail.			
11	Formulation of Policies and Plans Within the overall framework set out in paragraph 8 above, policies and proposals in the development plan should be consistent with national policies and strategic and regional planning guidance.			
12	Policies and proposals should take into account the principal impacts of coal working and spoil disposal, both separately and together, such as visual intrusion, water pollution, air pollution, noise, dust and traffic and the level of activity that a particular locality and its community can reasonably be expected to tolerate over a particular period, as well as the potential benefits such as job opportunities and the scope for landscape and amenity improvements through working and subsequent restoration. Equally, other development plan policies should ensure that provision for other development does not unnecessarily sterilise coal resources, nor allow development to encroach on existing mineral operations and thus increase the level of environmental impact to an unacceptable level.			
13	The Coal Authority and MPAs should liaise closely at an early stage of the development and mineral planning process. The Coal Authority should also be approached by MPAs in the consideration of individual planning applications…Coal operators should engage in full and open dialogue with MPAs and provide them with information on the extent of their known reserves and forward plans. MPAs should provide operators with information on the planning and environmental constraints within the authority area…For existing deep and drift mines consented under the Town and Country Planning (General Permitted Development) Order 1995 ("the GPDO") operators should also supply information on their forward mining plans in accordance with the DTI Code of Practice.			
14	Scope for Environmental Improvements Policies should give priority to proposals which will bring about environmental improvements.			
15	Safeguarding of existing businesses and opportunities for future investment Policies should be explicit that where there is material evidence that coal extraction and related development would have an adverse effect on efforts to attract or retain investment in an area, this is a material consideration which should be taken into account in deciding planning applications.			
16	Policies should make provision for proposals where extraction of coal from a site would facilitate the efficient and economic working of other mineral deposits on that site in an environmentally acceptable way…opencast sites provide one of the few viable sources of fireclay and every opportunity to produce it from a proposed site should be examined provided that the site can be properly restored and the overall proposal meets the tests in paragraph 8.			
17	Comprehensive working Where a forward programme of potential sites has been agreed in line with paragraph 13, policies should provide for proposals which would facilitate the comprehensive working of the coal deposits in a locality, subject to planning and environmental constraints and the acceptability of individual proposals in accordance with paragraph 8.			
18	Cumulative Impact Some areas have been subjected to successive opencast developments over a number of years. Policies should make clear that, where appropriate, the cumulative impact of a proposed opencast development on the community and the environment will be taken into account.			

Paragraph	MPG3 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
19	Extension to sites Developers should provide the MPA with as much information as they have available on the extent of the resources in a proposed site, and the way in which they propose to work them, before or at the time a planning application is made to avoid subsequent unplanned applications for site extensions in area or depth… Policies should therefore make clear that any proposal to extend an opencast site, in area or depth, will have to meet the criteria in paragraph 8. Where the proposal is likely to have significant effects on the environment an Environmental Impact Assessment should be required.			
20	Repeat applications Section 70A of the 1990 Act (as inserted by section 17 of the 1991 Act) provides that an MPA may decline to determine a planning application if it is made within two years of the Secretary of State refusing a similar application, either on call-in or appeal, and there has been no material change in circumstances since that decision. In addition there should be a general presumption against approving applications for development of a site, or extensions to an existing site, where a similar application has been refused previously unless there has been a material change in circumstances since that decision.			
21	Commencement and completion of development Policies should make clear that, if planning permission is granted, conditions will be imposed specifying the date by which development must be begun (or the planning permission will lapse) and dates for the completion of coal extraction, restoration and aftercare.			
22	Sterilisation In principle, it is desirable to secure coal extraction prior to new permanent development above coal reserves. Policies should therefore take into account the benefit of avoiding sterilisation of coal reserves by other forms of development, within a reasonable timescale and in an environmentally acceptable way, provided the proposal can meet the tests in paragraph 8 above.			
23	Deep mines and drift mines In general, proposals for drift mines raise similar issues to those for deep mines. The impact is largely determined by the size, location and duration of the operations. Policies should deal with the principal impacts arising from ancillary surface development at underground mines, for example: visual intrusion, noise, dust, traffic, the location and design of buildings and storage areas, coal washing and lagoons, and site restoration; and with the potential effects of subsidence, including the potential hazard of old mine workings, the treatment and pumping of underground water, monitoring and preventive measures for potential gas emissions; and the method of disposal of colliery spoil.			
24	Colliery spoil ..continuity of production at existing deep and drift mines in part depends upon the availability of land for spoil disposal. Plans should therefore set out policies which make provision for this.			
25	Policies should include consideration of viable alternatives to local tipping where that is precluded by environmental constraints or where there is a reasonable expectation that environmental gains will outweigh any increased costs, and should encourage use of the evaluative framework ("Procedural Manual Evaluative Framework: Assessment of Alternative Colliery Spoil Disposal Options" HMSO 1990).			
26	The coal industry should make every effort to keep spoil production to a minimum and to seek ways of reducing the environmental impact of its disposal, including flexibility in local arrangements for disposal; continued efforts to improve restoration techniques; and, by seeking opportunities for the recycling of spoil for use as secondary aggregates (see Annex A). It should supply current and projected spoil production figures to the MPA at an early stage so that a forward strategy on spoil disposal can be compiled for the whole area, and should cooperate in the discussion and preparation of forward programmes.			
27	Nationally designated and other sensitive areas Development plans should also contain policies, where relevant, for the protection of National Parks, AONBs, SSSIs, NNRs, ancient monuments, archaeological and other cultural interests, agricultural land and Green Belt. Advice on the national policies that apply is set out below.			
28	PPG7 - "The Countryside - Environmental Quality and Economic and Social Development" (February 1997) sets out in detail Government planning policies for all forms of development in National Parks and AONBs. The Government considers that major developments should not take place in these areas, and the New Forest and the Norfolk and Suffolk Broads, save in exceptional circumstances. Because of the serious impact that minerals developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all minerals development should be demonstrated to be in the public interest before being allowed to proceed.			
29	National Parks and AONBs Consideration of minerals applications in such areas should normally include an assessment of:			

Paragraph	MPG3 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	i. the need for the development, in terms of national considerations of mineral supply; ii. the impact of permitting the development, or refusing it, on the local economy; iii. whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iv. any detrimental effect of the proposals on the environment and landscape and the extent to which that should be moderated; and iv. in the case of extensions to existing mines, the extent to which the proposal would achieve an enhancement to the local landscape.			
30	<u>SSSIs and NNRs</u> Mineral proposals within or likely to affect SSSIs should be the subject of the most rigorous examination. When considering such proposals planning authorities are required to consult EN on such proposals and should take account of the advice in PPG9 - "Nature Conservation".			
32	<u>Other environmentally important areas</u> Planning authorities may designate other environmentally significant areas in their development plans, such as special landscape areas, or areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not be as high as that to be given to the nationally designated areas referred to above.			
33	<u>The historic environment</u> …The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features. When determining applications for extraction, MPAs should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings.			
34	…The protection of the historic environment, whether individual listed buildings, conservation areas or the wider historic landscape will need to be taken fully into account both in the formulation of authorities' planning policies and in development control.			
35	<u>Agricultural land</u> The Government's policy, as set out in PPG7, is that within the principles of sustainable development, the best and most versatile agricultural land (defined as land in Grades 1, 2 and 3a) is a national resource for the future, and considerable weight should be attached to the protection of such land because of its special importance when considering the allocation of land for minerals development, and deciding any application for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects……where the best and most versatile agricultural land is involved the restoration and aftercare steps should enable the retention of its longer term potential as a high quality agricultural resource.			
36	<u>Green Belt</u> Proposals for coal extraction and spoil disposal may also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance 2: Green Belts (PPG2). Applications to extract coal or deposit spoil in the Green Belt should be tested against the highest environmental standards. If permission is granted, stringent conditions should be attached to ensure the site is well operated and restored to the highest standards.			
37	<u>Mineral Local Plans and Part 2 of UDPs</u> Structure Plans and Part 1 of UDPs should set out strategic policies. Mineral Local Plans and Part 2 of UDPs should carry forward those policies and set out clear criteria against which individual proposals will be assessed. These criteria should include consideration of: - • the effects on local amenity; landscape; features of archaeological, architectural, historic or natural interest; and, agriculture; • the effect on hydrology or hydrogeology; • the environmental impacts of transportation of minerals and waste; • the cumulative impact on communities in the locality of proposals; • the effect on efforts to attract or retain investment in the area; • any environmental improvements or other material planning benefits to the community likely to result from the proposals; • the employment and other economic effects of the proposals; • the avoidance of sterilisation of mineral resources;			

Paragraph	MPG3 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	• the efficient and economic working of other mineral deposits in an environmentally acceptable way; • the avoidance of unplanned piecemeal working of deposits; and, • where development is acceptable in principle, the range of conditions likely to be needed to mitigate or control any potential adverse effects. MPAs may also wish to have regard to the Countryside Commissions' advice on landscape and countryside issues set out in their publication "Opencast coal mining: advice on landscape and countryside issues" (CCP434, 1993) and to English Heritage/Countryside Commission/English Nature's published guidance "Conservation Issues in Strategic Plans" and "Conservation Issues in Local Plans".			
38	Minerals Local Plans and Part 2 of UDPs should also indicate any areas where coal extraction and the disposal of colliery spoil may be acceptable in principle subject to development control criteria being met in any particular case, as well as those areas where working or disposal is unlikely to be acceptable or where coal resources are to be safeguarded for future working…			
39	Handling Specific Development Proposals Proposals for coal extraction and spoil disposal can give rise to considerable concern because of the potential environmental impact operations can have on a locality. Operators and MPAs should therefore have regard to the code of practice prepared jointly by the then County Planning Officers' Society and COALPRO ("Planning for Quality - A Code of Practice", September 1996).			
40	Before applications are submitted to the MPA for determination, and as early as possible, operators should explain fully the nature of their proposals, indicating the ways in which they intend to deal with the environmental factors that will arise…Technical issues such as drainage, access arrangements, working methods, pollution control, restoration, after-use and stability should also have been discussed with the appropriate bodies.			
41	There is a statutory duty to consult with and obtain approval from the Environment Agency with regard to the siting and condition of any spoil disposal to land.			
42	In all cases the MPA will need information about likely environmental effects as part of the material accompanying an application for planning permission. Operators should seek the MPA's views on the preparation of Environmental Statements (ES) appropriate to the scale of the proposal and the sensitivity of its location.			
43	Environmental Impact Assessment … Where proposals for mineral development are likely to have significant effects on the environment, applications will need to be subject to EIA under the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999 and an Environmental Statement (ES) prepared.			
44	…In any event, mineral applications in National Parks and AONBs should be subject to the most rigorous examination and EIA should always be required. Similar considerations apply to proposals which would affect SSSIs or other areas which have been designated nationally or internationally as requiring special consideration.			
45	Environmental duty In addition to any requirement for EIA, section 53 of the Coal Industry Act 1994 imposes an environmental duty on the coal industry. In formulating coal mining proposals requiring planning permission, operators are required to have regard to the desirability of the preservation of natural beauty, the conservation of flora and fauna and geological or physiographical features of special interest and the protection of sites, buildings, structures and objects of architectural, historic or archaeological interest; and, must formulate proposals for the adoption of measures to mitigate any adverse effect of the development on such matters. In considering coal mining proposals, MPAs must have regard to the extent to which the operator has complied with the duty.			
47	Post application consultations Following receipt of a planning application for coal extraction or spoil disposal, the MPA should undertake the consultations specified in the Town and Country Planning (General Development Procedure) Order 1995 ("the GDPO"). In addition, they should also consult MAFF where there is likely to be an agricultural afteruse. The Forestry Commission should be consulted where areas of forest are likely to be affected by the development or where forestry planting forms part of a reclamation scheme. The Countryside Commission should be invited to comment on any application which has a major impact on the landscape, Regional Parks, Country Parks, National Trails and Community Forests. MPAs should consider the likely effect on a National Nature Reserve, SSSI, or other area of ecological, geological or geomorphological importance, of any planning application at or in the vicinity of such a site, so as to decide whether or not to consult English Nature (EN). MPAs should bear in mind the possibility that certain developments may affect a site some distance away. Sites and Monuments Records (SMRs) should be consulted where proposals affect features of archaeological interest or the built heritage. SMRs will involve English Heritage as appropriate. English Heritage needs to be consulted directly on proposals which would affect Scheduled Monuments and grade I and II listed buildings.			
49	Consideration of applications MPAs will need to consider in detail the full range of social, community, economic and environmental issues that are relevant to the planning decision. For its part, the industry			

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	should demonstrate that it has addressed all potential adverse effects either by amending the proposals, or providing appropriate compensatory or mitigation measures when preparing planning applications. The industry should demonstrate that its proposals take all practicable steps to satisfy the environmental concerns on site operation and restoration. The objective must be to ensure that any adverse effects on local communities, environmental damage or loss of amenity caused by mineral working are kept to an acceptable level, and do not outweigh the benefits to the local community of proceeding with the development. Where material planning objections to a proposal outweigh any benefits to the local community then, as stated in paragraph 8(ii) above, planning permission should not normally be granted.			
50	Need and alternative sites or sources of supply Where the major argument advanced in support of an application to extract coal is that the need for the development outweighs the planning disadvantages inherent in it, the MPA should have regard to the possibility of meeting that need from alternative sites or sources of supply.			
51	Applicants should include a description of the main alternatives considered in their Environmental Statement.			
53	Consideration of impacts and conditions …In the meantime, the industry and MPAs should adopt the precautionary principle and ensure that proposals and developments do not result in unacceptable levels of airborne dust. Where planning permission is granted stringent conditions should be attached to control and monitor dust emissions. Further advice will be issued once the results of the research are known.			
54	… Meanwhile, and in any event, where planning permission for coal extraction or the disposal of colliery spoil is granted, the Secretary of State expects MPAs to impose planning conditions requiring the highest standards of operation, restoration and aftercare to ensure that any impacts on the environment or local amenity are minimised, and to ensure that compliance with those conditions is monitored and enforced. In that connection the industry can play its part by initiating annual independent environmental audits of operating sites and making the results freely available to the MPA, members of the public and other interested persons, either independently or as part of an individual company's accreditation under an environmental performance or monitoring system such as EMAS or ISO 14001…			
55	Planning Obligations … Where the environmental impacts of coal extraction or colliery spoil cannot be sufficiently mitigated, or controlled, by means of planning conditions alone, it may be appropriate for MPAs to seek planning obligations to ameliorate the harm or to secure relevant and legitimate local benefits which outweigh that harm, in line with paragraph 8 above. Community benefits, for instance, in the form of new community facilities or community trust funds may be proposed by the developer or suggested by the planning authority. However, any such benefits offered or sought should not be treated as material considerations unless they meet the tests set out in DOE Circular 1/97 - ie: i. they are necessary to make a proposal acceptable in land use planning terms; ii. they are relevant to planning; iii. they are directly related to the proposed development; iv. they are fairly and reasonably related in scale and kind to the proposed development; v. they are reasonable in all other respects.			
56	Restoration and aftercare Applications for extraction of coal or disposal of colliery spoil should include information which demonstrates that the site can be restored satisfactorily. The omission of such information is likely to delay determination of the application. If proposals for restoration are inadequate, unsatisfactory or impracticable, planning permission should not be granted. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.			
57	Proposals for restoration and aftercare of coal extraction and spoil disposal sites should form an important part of the information submitted with a planning application and in earlier informal discussions. This information should be sufficiently detailed for a realistic view to be taken of the after-use intended, including phasing of progressive restoration and the final landform and landscape intended. This should normally be agreed with the MPA in advance of planning permission being granted, after discussions with the district council, site operator, land owners, farming, local community and other relevant local interest groups (eg nature conservation).			
58	Aftercare proposals should also take account of the need to manage on-site and off-site drainage, and any creation of water features, including any advice from the Environment Agency who should be consulted, particularly when preparing any restoration and aftercare scheme where it is intended to impound or create an impoundment of water or create or divert a river or stream.			

Paragraph	MPG3 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
59	At the time planning permission is granted, both the principles and, as far as possible, the details of restoration should be agreed - although in some cases it may be sensible for some details to be agreed at a later stage. The intended after-use must also be decided when planning permission is granted, but in the case of longer term sites the detailed aftercare programme may more appropriately be settled in a scheme agreed subsequently. Further advice is given in MPG7.			
60	In the cases where agriculture is the intended after-use, it is essential that site working, restoration and after-use should be considered thoroughly at the outset, and in full consultation with MAFF, environmental and other interests as appropriate. In cases where forestry is the intended after-use, consultations on its appropriateness and on aftercare requirements should be with the Forestry Commission.			
64	However, where the operator can demonstrate to the satisfaction of the MPA that they are covered by an established and properly funded industry guarantee scheme, which would adequately finance a programme of restoration and aftercare in the case of default by the operator, the Government considers that a bond should not be necessary.			
65	… In all cases, operators should ensure that sufficient finance is available to enable them to meet fully restoration and aftercare conditions. Equally, MPAs should have regard at all times to the need to avoid imposing costs on coal operators that are larger or longer than strictly required to meet best standards. In those cases where security funding or bonds are required, the sums should be released progressively as restoration proceeds.			
66	Liaison Committees Should permission be granted, particularly for major developments, developers should aim to set up a liaison committee or advisory panel consisting of representatives of the developer, the contractor working the site, local authorities and members of the local community and other interested bodies (including EN where appropriate) to ensure that the local community has a full understanding of working practices and that the developer and contractor are fully aware of local community concerns.			
68	Nevertheless, the Government expects MPAs to determine applications expeditiously….Applicants should aim to provide authorities with all the information that is needed to determine the application, including in all normal cases an appropriate Environmental Statement covering all relevant issues. If the authority needs further information, every effort should be made to ensure that requests for its provision are comprehensive at the outset.			
Annex B	Planning and Pollution Control B3. Planning conditions should not seek to control through planning measures matters that are the proper concern of the pollution control authority, except where planning interests can be clearly distinguished. However, the winning and working of minerals is an operation which continues over a number of years and the "development" is not complete until the site has been worked out and restored. The MPA will therefore be concerned with the totality of the impact of the development on amenity and other land uses, whether or not part of the development is subject to pollution control. B4. Where processes prescribed for control under Part I of the Environmental Protection Act 1990 form part of the application for planning permission for coal extraction or colliery spoil disposal, material planning considerations may include the potential loss of amenity caused by pollution, and the MPA will need to take them into account in determining whether planning permission should be granted. MPAs should, where appropriate, impose planning conditions on any permission minimising such impacts. Such conditions must relate to land use planning considerations and may include conditions regulating such matters as noise, dust, hours of working etc where these are necessary to protect local amenity or other land uses. However, planning conditions should not duplicate pollution controls on prescribed processes. It is essential therefore that MPAs should consult the relevant pollution control authority at an early stage about the extent to which matters should be addressed through planning or pollution control mechanisms, and to provide the pollution control authority with an opportunity to comment on pollution control in respect of the development as a whole.			

MPG5: STABILITY IN SURFACE MINERAL WORKINGS AND TIPS

Paragraph	MPG5 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	This guidance advises that: - mineral planning authorities need to consider stability in relation to surface mineral workings and tips; - local planning authorities need to consider stability in relation to development in, on or near abandoned surface mineral workings and tips; and that - policies should outline the consideration which will be given to stability issues in considering mineral development and other development in, on or near to mineral workings and tips; - consideration of apparently unrelated issues may require consideration of the potential effects on the stability of excavated or tipped slopes; - where appropriate, planning applications and restoration/landscaping schemes should be accompanied by a design report prepared by a competent person which demonstrates that the perimeter slopes and any internal slopes remaining after restoration will remain stable.			
16	Development Plans When preparing minerals local plans, MPAs will need to consider the extent to which specific policies should be included to cover tip- and quarry-slope stability or whether this issue should be covered by supplementary guidance. This consideration should take account of the factors which might trigger particular concerns about stability, such as proximity to built development or infrastructure; knowledge of previous instability problems; the criteria to be used to define stand-off distances or clearances between quarry slopes or tips and the site boundary or third-party structures; and the requirement for final slopes and restoration to be compatible with stable slopes…	✘	✘	✘
17	In addition, policies in district-wide local plans should seek to ensure that land use is appropriate when considering development above or below abandoned quarry slopes and on or near to disused tips or back-filled workings. In particular, attention should be given to the possible need for stand-offs to protect neighbouring land or structures and/or for slope stabilisation measures. Where development is being proposed on back-filled workings, consideration will be needed of both the planning and Building Regulations requirements in respect of stability, as well as of the possibility of contamination arising imported waste…Any development planning briefs prepared for such sites should ensure that the issues of slope stability, differential settlement of quarry backfill and the likelihood of contamination and migration of contamination from the site are properly addressed.			
20	Applications for Mineral Workings and Review of Old Mineral Permissions Landscaping and restoration proposals should be consistent with the production and maintenance of safe and stable slopes.			
22	While the internal working slopes of quarries and tips are principally matters of concern to the operator and the HSE rather than for the MPA, the final perimeter slopes and restoration proposals have land-use implications, which need to be considered by the MPA. In order to do so it will need to be provided by the operator with an assessment and design of perimeter slopes and any internal slopes remaining after restoration to enable any potential for adverse effects due to instability to be minimised.			
24	Applications for new workings should be accompanied by an appraisal of slope stability issues based on existing information, which aims to: • identify any potential hazard to people and property and assess its significance; • establish the basis for reserve calculation; • identify any features which could adversely affect the stability of the working to enable basic quarry design to be undertaken.			
25	Where built development is the proposed after-use for back-filled workings, MPAs should impose conditions to secure appropriate deposition and compaction to allow that development to proceed without the need for further ground treatment.			
26	Applications for Development on or Near Abandoned Tips or Quarries Appraisals and assessments of excavated and tip slope stability should be carried out for the operator by a competent person, as defined in the Quarries Regulations 1999. The MPA is entitled to rely on such appraisals and assessments in considering the impact of stability on land use. The MPA should ensure that any changes to the applicants proposed method of working, which may be desirable for other reasons, are appraised and assessed by that competent person.			
27	Conclusions Where development is proposed in or near the slopes of abandoned quarries or tips, local planning authorities should seek information from applicants in respect of stability reports prepared by a competent person. The layout of such development will need to be considered in relation to the stability of nearby slopes and the necessity for and feasibility of any necessary stabilisation measures. Development on back-filled workings and tips will also need to consider the potential effects of differential consolidation of the fill/tip material as well as any potential effects on slope stability. The detailed resolution in terms of specific foundation measures or ground treatment is, however, a matter for the building regulations.			

MPG7: THE RECLAMATION OF MINERAL WORKINGS

Paragraph	MPG7 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
8	Reclamation Policies in Development Plans Structure plans and Part 1 of UDPs should express in general terms the MPAs strategy for mineral working and related development taking into account national and regional policies. They should provide policy guidance to applicants including in general terms the need for restoration and aftercare of mineral workings.	✓	✘	✘
9	Minerals local plans (or minerals and waste local plans), district-wide local plans of the new unitary authorities (where authorised to include minerals and waste policies), and Part II of the UDP's provide an opportunity for local authorities to develop in detail the policies and plans for their area. They should provide policy guidance to applicants on appropriate uses of land within the plan areas. This should assist in the early identification of the most appropriate after-use for a mineral site.	✘	✘	✘
10	When drawing up their plans, local authorities should have regard to Government policies on land use.			
13	National Land Use Policies and Reclamation of Mineral Sites Agriculture: Where minerals underlie the best and most versatile agricultural land it is particularly important that restoration and aftercare preserve the long-term potential of the land as a national, high quality, agricultural resource.	✘	✘	✘
14	Government policy seeks also to encourage the diversification of the rural economy where this will not result in the significant loss of high quality agricultural land. Therefore whilst agriculture remains the most appropriate after-use for many mineral sites, other uses such as forestry and some forms of amenity including nature conservation (e.g. heathland or unimproved grassland), should also be considered on land which was originally in agricultural use. Where these alternatives are proposed on the best and most versatile agricultural land, the methods used in restoration and aftercare should enable the land to retain its longer-term capability to be farmed to its land classification potential, thus remaining a high quality agricultural resource for the future…	✘	✘	✘
15	Reclamation to non-agricultural uses does not mean that there can be any lessened commitment to high standards in the reclamation and recycling of land taken for mineral working, and they therefore should not be chosen because they are perceived as `easier options'. They require equal commitment by mineral operators, mineral planning authorities and any other parties involved to achieve high standards of implementation.			
18	Forestry Therefore, in the areas of the "Community Forests", the National Forest, and in preferred areas as identified in IFSs, structure plans and minerals local plans should give consideration to inclusion of policies for the after-use of mineral sites to forestry and amenity woodland.	✘	✘	✘
20	Landfilling of Surface Mineral Workings Unitary planning authorities should include waste policies in their unitary development plans.			
21	Waste local plans therefore need to take account of minerals local plans.			
22	Imposing Reclamation Conditions for New Permissions General Considerations In granting planning permission for mineral working, MPAs should always carefully consider the applicant's proposals for reclamation of the site, how and whether the proposals are likely to achieve the intended results and, therefore, how requirements to ensure satisfactory reclamation can be incorporated into appropriate planning conditions. It is equally important that the applicant should thoroughly understand, and make financial provision for, the responsibilities he will be taking on under the reclamation conditions likely to be imposed on a planning permission.			
24	Planning conditions for reclamation should normally be framed with the intended after-use in mind. However, separate planning permission is likely to be required for any after-use except: i. agriculture and forestry (excluded from the definition of development in section 55 of the 1990 Act), ii. uses which are included in the Town and Country Planning (General Permitted Development) Order 1995, and iii. nature conservation and informal recreation which do not involve substantial public use. Any application for development on a current or disused mineral working site which would conflict with or prejudice compliance with a restoration and aftercare condition imposed			

Paragraph	MPG7 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	in respect of the mineral working will be dealt with by the MPA.			
25	Pre-Application Considerations The drawing up of practical proposals for site reclamation will require a careful site investigation by the potential mineral operator prior to the submission of an application. The outcome of the investigation should be reflected in the documentation submitted with the application.			
26	It is in the applicants interest to discuss working and reclamation proposals and possible planning conditions with the MPA, prior to formal submission of an application. These discussions should also involve the statutory consultees, the landowner, tenant and any other person with a relevant interest.			
27	To demonstrate that a site can be reclaimed to an acceptable standard and after-use, the applicant is advised to prepare, at the outset, a working plan which includes restoration proposals and is based upon findings from the site investigation. This should be in sufficient detail for the MPA and any statutory consultees to form a judgement as to its feasibility.			
28	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, they will need to be subject to an assessment of those effects under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988.			
29	Whether or not a formal environmental assessment is required, operators are advised to follow the general methodologies for the assessment of environmental effects in all applications. These provide the applicant with the opportunity to demonstrate, and the MPA to evaluate, for example, the practicality of the proposed after-use(s). Where there is doubt as to the practicality of proposals, the operator should discuss alternative solutions using the available information.			
30	Submission and Determination of Planning Applications Having received an application for planning permission, it is necessary for the MPA to notify or consult other interested parties before reaching a decision…MPAs are not required to consult external experts for advice on amenity use; but they may do so in appropriate cases.			
31	Policies and guidance in Minerals Local Plans, Part II of UDPs and other local plans should assist in these considerations.			
32	MPAs should thus have regard to the practicality of the proposal before them. The possibility that reclamation techniques may have improved in the intervening time must also be borne in mind.			
33	Drawing up Reclamation Conditions Where a permission is granted, therefore, the conditions should be drafted in such a way that, even if the interest of the mineral operator applying for permission is subsequently disposed of, the requirements for reclamation can still be fulfilled, whether by a new operator or in the case of default, by the land-owner. The general principle is that a MPA should take into account whether it is feasible to implement the applicant's reclamation proposals successfully.			
34	Planning conditions for reclamation should be specific to the proposed site and should normally be framed with the intended after-use in mind.			
35	Where possible, it is normally desirable to have 'progressive' or 'rolling' reclamation to minimise the area of land occupied at any one time by the mineral working, unless to do so would be likely to affect adversely the standard of reclamation achieved, or would be impractical having regard to the type of operation and nature of the site. Conditions for progressive reclamation normally limit the area taken for mineral working at any one time and relate it to the rate of restoration of earlier phases of the operation. It is, however, important that conditions permit a sufficient area of land to be stripped of soils in advance of mineral extraction to allow for wet years when soil stripping operations may be impracticable. It is not advisable to specify actual dates in conditions for phasing unless there are overriding reasons to do so.	✓	✘	✘
36	For short-term workings it is usually appropriate to impose a detailed set of conditions at the time of granting planning permission. For longer-term workings, early agreement on the details of at least the later stages of reclamation may not be appropriate.			
37	For longer-term workings, it is also appropriate to agree at the outset outlines of requirements covering the main stages (e.g. filling, restoration and aftercare), together with detailed schemes for stripping and storage of soil materials. This must be sufficient to clearly demonstrate that the overall objectives of the scheme are practically achievable. Such workings should then normally require the submission of a detailed scheme or schemes for restoration and aftercare, for agreement, by some specific stage towards the end of the life of the permission. Sites where progressive reclamation is to be carried out can require submission of schemes for agreement from time to time as appropriate.			
38	Soil Handling and Storage For after-uses requiring the growth of vegetation, effective reclamation will depend on the appropriate identification and management of soil resources prior to and during work as well as in the later stages of restoration and aftercare. Soil resources in this context are taken to include any medium which is not contaminated and which has a realisable	✘	✘	✘

Paragraph	MPG7 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	potential to permit plant root growth and to retain and provide water and nutrients. Planning conditions will normally prevent soil resources from being exported from the site. In addition they will usually require the separate stripping, storage (where necessary) and respreading in correct sequence of defined thicknesses of topsoil, subsoil, or any other soil-making materials. Some sites may contain considerable variations of soils within them, such as major textural differences, and it may be desirable to require separate stripping (and storage and restoration) of these materials. Such soil variations should have been identified in pre-application site surveys and provided for in the reclamation plan.			
40	Landform and Landscape In preparing a planning application for either a new site or any significant extension to an existing working, the applicant/operator should develop a site-specific landscape strategy, which includes: i. defining the key landscape opportunities and constraints; ii. considering potential directions of working, significant waste material locations, degrees of visual exposure etc; iii. identifying the need for additional screening during operations; iv. identifying proposed after-uses and preferred character for the restored landscape.			
42	Landscape and reclamation plans should address the impacts which mineral extraction can have on the existing landscape. These will include the working face and operations at the face, locations of waste tips, and haul roads.			
43	The intended final landform, gradients and drainage of a site should be designed and specified at the outset, with controls in planning conditions as appropriate. For many sites there may need to be some flexibility, and a continuation of the iterative design process, to take account of changes necessitated by operational, geological and mineral working safety demands. However, major planned final landform elements are not easily adjusted when extraction is almost complete, and modifications should not compromise the overall environmental acceptability of the scheme.			
44	Wherever possible and safe to do so the natural gradients and rock features of the surrounding landscape should be imitated when forming new screening banks, soil storage bunds and final faces.			
50	Backfilling or Infilling with Mine and Quarry Wastes Filling of a mineral void with these materials will be controlled by planning conditions. The conditions will need to address both the manner and sequence of filling the excavation and specify, usually by appropriate reference to plans and cross sections, the intended gradients, landform and contours of the final surface. Allowance should be made for predicted final settlement. Mine and quarry wastes are not controlled wastes as defined under the Environmental Protection Act 1990 (the EPA 1990).			
51	Infilling with Controlled Wastes However, the choice to integrate the two activities should be a deliberate and conscious one, which takes account of the joint impact of the extraction and landfill on the site and surrounding area.			
55	Restoration Restoration conditions also need to cover remedial treatment of soil so as to facilitate the use of cultivation, harvesting and drainage equipment for the aftercare period and the longer-term management of the land.			
59	Aftercare Consultations and Responsibilities Before imposing an aftercare condition, the MPAs are required to consult the appropriate Agriculture Minister (through the regional Land Use Planning Units of MAFF) where they propose that the land should be used for agriculture, and to consult the Forestry Commission where they propose that it should be used for forestry.			
61	Provided the necessary information has been submitted by the operator (see Boxes 5 and 6 in Annex A) then the consultations required for successful aftercare to take place should not be allowed to lead to undue delay in the grant of planning permission or the completion of an agreement on the aftercare condition or scheme.			
62	Form of Aftercare Conditions An aftercare scheme will usually be appropriate with a long-term permission where restoration and aftercare may not be begun for a number of years. It should provide a flexible framework for a successful programme of aftercare. There may, however, be cases where it would be appropriate to specify aftercare steps in the aftercare condition itself - e.g. where mineral working will be short-term and the aftercare relatively straightforward, or for the first phase where progressive restoration and aftercare are to be carried out relatively quickly.			
70	Financial Responsibility for Aftercare			

Paragraph	MPG7 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	It is important that the likely aftercare requirements are made clear at the outset so that operators are aware of the cost implications involved, and can make provisions for them.			
74	Aftercare and Agricultural Set-Aside Before seeking to set land aside farmers and landowners are therefore advised to ensure that they are capable of meeting both aftercare planning requirements and AAPS management rules. Where this cannot be achieved land should not be set aside.			
75	Planning Obligations However, planning obligations which are sought should fairly and reasonably relate in scale and kind to the proposed development.			
82	New or Improved Reclamation Conditions for Existing Permissions and Workings, Including Interim Development Orders and Old Mineral Permissions The new schemes should include provisions for landform, restoration and aftercare of sites to a suitable after-use. Where a site is already subject to satisfactory conditions providing for restoration and aftercare there should be no need to alter them. In all other cases, appropriate restoration and, where relevant, aftercare conditions should be imposed and provision should be made for reclamation to an appropriate after-use as soon as practicable.			
86	Financial Provision for Reclamation It is Government policy that properly worded and relevant planning conditions which are complied with and, where necessary, enforced, should be able to secure the restoration, aftercare and after-use of mineral sites. No payment of money or other consideration can be required when granting a planning permission except where there is specific statutory authority…Financial guarantees to ensure the reclamation of mineral sites should therefore not normally be required, and policies in development plans should not state that a local authority will require or seek bonds other financial guarantees to underpin planning conditions.			
91	Responsibility for the restoration and aftercare of mineral sites lies with the operator and, in the case of default, with the landowner. Applicants should, therefore, demonstrate with their applications what the likely financial and material budgets for restoration, aftercare and after-use will be, and how they propose to make provision for such work during the operational life of the site. This is important to avoid future dereliction and the possibility that the costs of reclamation of mineral sites might have to be borne by other public or private sources.			
93	Any demonstration by an operator of how they intend to make financial provision for restoration, aftercare and after-use should relate to the development proposed. MPAs should not seek a demonstration or provision of unlimited cover for unspecified future liabilities or for matters where normal planning mechanisms would apply. In particular MPAs should not seek financial guarantees from applicants, prior to the grant of planning permission, to deal with possible future breaches of planning controls that can be dealt with through existing planning enforcement powers and procedures.			
94	There may remain exceptional cases where it will be reasonable for an MPA to seek a financial guarantee to cover restoration (including aftercare) costs, through a voluntary agreement/planning obligation at the time a planning permission is given. Examples of such situations may be: i. for very long-term new projects where progressive reclamation is not practicable, such as a super-quarry or some types of industrial or metalliferous mineral sites, where incremental payments into a secure fund may be made as the site develops; ii. where a novel approach or technique is to be used, but the MPA considers it is justifiable to give permission for the development; iii. where there is reliable evidence of the likelihood of either financial or technical failure, but these concerns are not such as to justify refusal of permission. However, it is the Government's view that where an operator is contributing to an established mutual funding scheme, such as the SAGA Restoration Guarantee Fund, it should not be necessary for an MPA to seek a guarantee against possible financial failure, even in such exceptional circumstances.			
95	There are some other circumstances where a financial guarantee might be appropriate as part of a planning obligation, including where the mineral developer contributes funding towards management of the new after-use of the land which needs to last beyond the formal aftercare period.			
96	It is important that where MPAs may seek specific financial guarantees for site reclamation, this does not unfairly discriminate against smaller operators. Therefore, all planning controls must be applied on an even-handed basis, regardless of the size of the operator.			
97	Monitoring and Enforcement of Restoration, Aftercare and Related Site Operations The objective should be for all relevant parties to have in place adequate systems, including quality controls and staff with appropriate training and skills, to achieve their parts in securing successful site reclamation in the most cost-effective manner.			
98	Mineral operators should ensure that good records of all relevant planning documents, and of operations carried out, are kept at each site; and similar information should be held by the MPA.			

Paragraph	MPG7 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
99	It is recommended that mineral operators provide MPAs with an annual report on each of their sites, which indicates how they have monitored and complied with specific planning conditions. For new sites such a requirement could be included as a planning condition, providing that the actual conditions to be monitored and reported on are sufficiently precise and identified. However, monitoring reports should not be seen as an alternative to proper and objective monitoring of compliance by the MPA.			
100	MPAs should also have a planned series of visits to sites to check on key activities at the right times, such as in advance of soil stripping and stages of restoration, in addition to routine monitoring and recording of progress.			

MPG10: PROVISION OF RAW MATERIAL FOR THE CEMENT INDUSTRY

Paragraph	MPG10 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
4	Introduction The Government places great importance on reducing the level of imports of building and construction material, and wishes to encourage domestic production to counter the rising import trend and to provide employment. The Government would also not wish to discourage any export opportunities that might arise. The Government therefore looks to mineral planning authorities to make provision for adequate supplies of raw material for the industry as it endeavours to meet future domestic demand.			
	It is important that short term gains should not be achieved by creating environmental debts for future generations. The encouragement of cement production must therefore be balanced against important environmental and conservation interests. The industry are asked to draw up schemes for new quarrying in consultation with the minerals planning authorities which reflect these environmental considerations. Key features of these schemes will be proposals for the working arrangements and the restoration and after-use of both existing operations and new sites.			
26	Development Plans Development plans provide an opportunity for considering the various options for the future location of mineral workings, identifying preferred locations and the safeguarding of mineral resources for future working. Structure plans should identify areas for mineral development in broad terms. Mineral local plans should identify are as in more detail using Ordnance Survey-based maps.			
27	Development plans should also set out the environmental criteria against which planning applications will be assessed, and policies for the working, reclamation and after-use of mineral working sites. They should also carry forward national policies for landscape and historic or nature conservation and for agriculture which may constrain the choice of sites for mineral working.			
28	In cement-producing areas, development plans should try to assess the likely raw material needs of the industry and having examined the various options which are available identify preferred areas of working which will meet these needs. The forecast of possible future demand for minerals used in the production of cement at annex B should inform the assessment of likely needs. Mineral planning authorities should discuss the choice of sites with the cement industry when formulating these plans. The choice of sites must take into account national policies on landscape and historic or nature conservation and on agricultural land. The plans should also safeguard mineral resources for future working. The plans should set out the development control criteria which new planning applications for mineral extraction must satisfy. They should also set out policies and proposals for the working, landscaping, reclamation and after-use of mineral sites.			
31	Supply Policies for the release of land for mineral working and cement production should therefore balance the need for the development, environmental, social, agricultural and other relevant considerations.			
34	Location of Plant and Production Capacity It follows from this that, in order to maintain and in some cases increase production at existing plants, it will be necessary for the cement makers and the mineral planning authorities to identify areas of working and to safeguard resources reasonably near existing plants, after taking account of all environmental criteria. Proposals will also need to be drawn up for the working, landscaping, restoration and after-use of quarries and plant sites.			
36	Wharves For their part, planning authorities should make every effort to identify and safeguard suitable locations for wharves in their development plans.			
38	Safeguarding As mineral resources are finite, local planning authorities should make every effort to safeguard in their development plans, and through development control, those deposits which are of economic importance against other types of development which would be a serious hindrance to their extraction. It will usually be necessary to consider need over a much longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the time scales of the proposed mineral working in order to keep blight to a minimum. Where it is possible to extract minerals prior to other more permanent forms of development this should be encouraged unless there are good planning reasons for not doing so.			
39	National Parks The Government's policy on the treatment of applications for mineral extraction in the National Parks is set out in MPG1. Applications must be considered on their merits, but because of the serious impact which mineral working may have on the natural beauty of the Parks, minerals applications in these areas "must be subject to the most rigorous examination". Extraction should be demonstrated to be in the public interest, and consideration of such applications should therefore normally include an assessment of: i. the need for the development, including the extraction of the mineral in terms of national considerations and the impact of permitting or refusing it upon the local economy;			

Paragraph	MPG10 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	ii. the availability and cost of alternative sources of supply; iii. any detrimental effect on the environment and the landscape and the extent to which that could and should be moderated; iv. whether in the light of this assessment the proposed development would be justified in the public interest. (Hansard, House of Commons 9 April 1987 columns-393-394).			
40	Areas of Outstanding Natural Beauty AONBs are designated under the National Parks and Access to the Countryside Act 1949 for the purpose of preserving and enhancing their natural beauty and, as is the case with National Parks, they may also contain valuable chalk and limestone deposits. The Government's policy on AONBs (Hansard, House of Commons 29 July 1982 Cols 707-10) also requires that minerals applications in these areas "should be subject to the most rigorous examination".			
41	National Nature Reserves and Sites of Special Scientific Interest DOE Circular 27/87 (WO 52/87) emphasises that in determining planning applications and drawing up development plan policies planning authorities should take full account of nature conservation factors particularly in areas designated as National Nature Reserves or Sites of Special Scientific Interest for their flora, fauna or geological or physiographic features. It specifies that mineral applications in these areas should be subject to the most rigorous examination. English Nature should be consulted on such applications in England and in Wales consultation should take place with the Countryside Council for Wales. It is recognised that there may sometimes have been cases where mineral workings have been beneficial in the establishment of new wildlife habitats and in the exposure of important geological features.			
42	Other Environmentally Important Areas Planning authorities may designate in their development plans other environmentally significant areas, such as special landscape areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not normally be as high as that given to the statutorily designated areas referred to above.			
43	Ancient Monuments and Archaeological and Other Cultural Interests Mineral working may damage or destroy irreplaceable sites, structures and remains of historic archaeological interest that are of importance to the national heritage. The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features, and mineral planning authorities should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings when determining applications for extraction. Planning Policy Guidance Note 16: Archaeology and Planning (PPG16), and the CBI Code of Practice for Minerals Operators, underline the importance of identifying as early as possible the likely presence and importance of any archaeological sites liable to be affected by the proposed development. In England this should involve early consultation with the County Archaeological Officer or equivalent (listed in PPG16) and in Wales with the regional archaeological trust. Where remains are scheduled (under the provisions of the Ancient Monuments and Archaeological Areas Act 1979), the Secretary of State for the Environment's consent is needed before works may proceed. Where buildings are listed, listed building consent is required before they may be altered or demolished.			
44	Agricultural Land Applications for minerals extraction from land used for agriculture are subject to policies set out in DOE Circular 16/87 (WO 25/87). The Government's overall policy is that when considering the allocation of land for development and in deciding applications for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects. The Circular also recognises that minerals have to be worked where they occur and that mineral workings provide valuable raw materials for industry and can contribute to the rural economy. These factors, and the feasibility of a high standard of restoration, therefore need to be considered in deciding planning applications for mineral working affecting agricultural land. Where minerals underlie good quality agricultural land, the Circular advises that the best and most versatile land is a national resource for the longer term and should in general be protected from irreversible development.			
45	Green Belt Proposals for mineral working also arise within Green Belts. The government's policy is set out in Planning Policy Guidance Note 2: Green Belts (PPG2). This states that the extraction of minerals need not be incompatible with Green Belt objectives provided that high environmental standards for working and landscaping are maintained and that the site is well restored to an appropriate use.			
47	Local Environmental Effects MPAs should have regard to all material considerations when determining applications, including these guidelines and relevant policies in development plans. They will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the cement industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them. The industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns of neighbouring sites with regard to site operation and restoration. The objective must be to ensure that any environmental damage or loss of amenity caused by mineral working is kept to an acceptable level.			

Paragraph	MPG10 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
48	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, the projects concerned will need to be subject to environmental assessment (EA) under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988… … It is therefore the industry's intention to continue its practice of submitting statements, covering all relevant issues, in support of planning applications. The Government welcomes this.			
53	Transport The policy implications for the planning system are that cement plants generate significant amounts of road traffic and that the scope for transferring this to the railways is currently limited. MPAs should pay particular consideration to traffic routing when determining new planning applications. The industry should keep under review the options for using rail transport and use it in preference to road transport wherever it is cost effective to do so taking account of the possibility of obtaining grants under Section 8 of the Railways Act 1974 for the construction of rail facilities.			
54	Water Interests There is a substantial body of legislation in relation to water supply, pollution and land drainage. Mineral planning authorities and the industry should take into account the need to protect the flow and quality of water supplies in accordance with British and European Community legislation and the need to ensure that changes in the water table as a result of minerals extraction do not cause environmental damage. The National Rivers Authority should be consulted about all new mineral development proposals.			
55	Air Pollution Cement production can generate significant air pollution. Under the Environmental Protection Act 1990 the manufacturer of cement or clinker must be authorised by HMIP for integrated pollution control. The operator must demonstrate the use of the best practical environmental option (BPEO). The bulk handling of cement other than at the point of production requires authorization from the local authority. The Secretary of State is issuing guidance notes to be used by both HMIP and Local Authorities to assist in achieving the objectives set down in the Environmental Protection Act 1990.			
57	Landbanks Mineral planning authorities should therefore maintain landbanks of permitted reserves of raw materials for cement plants, providing that the industry come forward with sufficient environmentally acceptable proposals. These landbanks should include the industry's primary materials (chalk and limestone) and also secondary materials (clay and shale). There should be a landbank calculated for each site.			
58	The size of the cement industry's landbank should be directly linked to the scale of capital investment envisaged at a site, for an important feature of the industry is the high cost of investment and the long amortisation periods this entails. Mineral planning authorities should normally aim to maintain cement plant with a stock of permitted reserves of at least 15 years. Where significant new investment (such as a new kiln) is agreed with the mineral planning authority, the plant should be provided with a stock of permitted reserves to provide for at least 25 years. New plant on a greenfield site should be provided with a stock of permitted reserves lasting more than 25 years.			
59	Development plans should normally allocate sufficient land for mineral extraction for cement manufacture to provide for the maintenance of landbanks. Structure plans should set out the general principle of maintaining a landbank for cement plant, and mineral local plans should seek to identify areas where minerals will be worked. Sufficient land should be allocated to maintain this landbank throughout, and at the end of, the plan period.			
60	It should be noted that the general commitment to maintain a landbank does not remove a mineral planning authority's or the Secretary of State's discretion to refuse planning permission for an application should there be overriding environmental objections. Planning applications may also be refused within areas allocated in development plans if the actual development proposal is judged to be unacceptable on environmental grounds.			
61	In most parts of the country, mineral planning authority boundaries should constitute a suitable basis on which to base a landbank policy, but mineral planning authorities may choose to adopt either a sub-regional or a sub-county approach as appropriate. Whatever area is chosen for landbank purposes, it is essential that production and reserve data should be available and the industry and mineral planning authorities should work together to facilitate this.			
63	The Government takes the view that it is in the national interest to maintain and increase cement production, and to increase the scope for competition. Sufficient reserves of minerals should be permitted for this. More permitted reserves are particularly needed where the size of the landbank is below the levels recommended in para 58 above. The cement makers and the mineral planning authorities should examine the feasibility of bringing forward planning proposals for new raw material reserves at the best balance of economic, environmental and social cost. In undertaking this the planning authorities may wish to have regard to the forecast at Annex B of the long term future demand for cement minerals.			
64	Working Practices, Restoration, Aftercare and After-use The Government looks to the cement industry to adopt working practices in their mineral extraction operations which will cause the least adverse environmental impact and to			

Paragraph	MPG10 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	endeavour to be a good neighbour. The Government has commissioned research into the environmental effects of surface mineral working and this will provide the basis for further advice on good environmental practice for the minerals industry generally. The Government will expect the cement industry to take account of such guidance in operating its present sites and in any future operations.			
65	It is established Government policy that restoration and, usually, aftercare will be required to make mineral workings fit for beneficial after-use and environmentally acceptable. This may include restoration to agriculture, forestry, management for nature conservation, provision of public open space, recreation or other development……Wherever practicable, mineral planning authorities and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved…			
66	Reinstatement of sites to an appropriate after-use should be an integral part of the planning of raw material supplies for the cement industry. One of the distinguishing features of the industry is the scale and duration of its mineral extraction operations, which can transform the local landscape. For each operational site the industry should therefore draw up a quarry plan, where such a plan is not already in existence, in consultation with the mineral planning authority, for the screening and phasing of working, restoration and aftercare, and the longer term after-use and changes to the landscape. As recognized in MPG7, whilst final site reclamation and possible after-uses must be considered at the time of a planning application and appropriate provision made in the conditions, it is likely that most such schemes prepared before extraction commences will require updating and amendment during the lifetime of a working. Planning conditions may allow for this by requiring a general treatment scheme to be prepared and agreed before extraction starts, to be followed up by submission of detailed schemes for particular phases as they are completed and by setting a time limit for submission of the final reclamation plan which is commensurate with the duration of the mineral permission.			
67	Restoration of mineral sites may involve infilling all or part of the site with waste material. Where wastes other than those generated through the extraction process are being brought onto the site, the nature of the wastes to be used and the method of working need careful attention at the planning application stage and in obtaining an appropriate licence from the waste disposal authority. The Environmental Protection Act will require authorities to be satisfied that there are no hazards or difficulties arising from the landfill before they can provide a Certificate of Completion. This could involve particularly lengthy periods (20-30 years) but, if landfill gas from any site (eg clay extraction and backfill) could be utilised as a fuel for any adjoining cement plant, the resulting integrated scheme of extraction and use might optimise use of materials and restoration of land. Where the quarry plan envisages an afteruse involving built development, restoration should entail using inert waste to avoid the dangers of methane generation.			
68	It will be important for MPAs and the industry to work together, using both statutory and voluntary procedures available, to achieve satisfactory solutions for these older operational sites. The aim should be to do this within 2 years of the publication of these guidelines.			
70	Speeding the Planning System The Government accepts that quarrying proposals are often complicated and can arouse local controversy, and it is important that all material considerations receive careful attention. Nevertheless, the Government expects mineral planning authorities to determine applications expeditiously. The industry itself can help to reduce possible delay by discussing its development proposals with the authority, the local community, relevant local bodies such as the County Wildlife Trusts and the appropriate statutory bodies at an early stage before planning applications are formally submitted. Applicants should aim to provide authorities with as much information as possible to help them determine the application. If the authority needs further information, every effort should be made to ensure such requests are comprehensive at the outset. Mineral Planning Guidance Note 2: "Applications, Permissions and Conditions" (MPG2) provides further guidance on the drawing up and determining of planning applications.			
72	Potential for waste disposal and energy conservation However, there needs to be careful control of the overall chemistry to ensure emission limits are not exceeded, and account has to be taken of the production capacities, product quality, energy consumption and capital investment for the safe and practicable burning of potential wastes. Kilns using waste would need appropriate planning and waste disposal licensing consents (these will become waste management licences with the implementation of the 1990 Environmental Protection Act). HMIP should be consulted about proposals for burning wastes.			
73	The industry should look for opportunities to dispose safely of waste in this manner.			
74	Industry will continue to look for other such opportunities.			
79	Implementation and Review These guidelines will provide the basic framework for the planning of raw material for cement. They will be taken into account by the Secretaries of State when considering development plans and individual planning applications which come before them for decision.			
80	MPAs should have regard to these guidelines in formulating development plans and when considering development proposals. Development plans should recognise the need to make provision for a continuing supply of raw material in the vicinity of existing plant in a manner compatible with other environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied. The mineral plans should also maintain a landbank of permissions			

Paragraph	MPG10 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	compatible with these objectives.			
81	The cement industry has an important role to play in co-operating with, and contributing to, the development plan process. For example, the successful application of landbank policies depends upon the ready availability of information on reserves and production. The industry should endeavour to ensure that proposals for mineral development reflect these guidelines and come forward at the right time. The industry is also responsible for drawing up the quarry plans, in consultation with the mineral planning authorities, for achieving a high standard of operation while the site is being worked and for restoring the site when working has finished.			
82	These guidelines have been based on the best information currently available. They will need updating to reflect changes in demand, technology and environmental standards, but the policy of establishing landbanks will provide flexibility. The guidelines will be reviewed every four years.			

MPG13: GUIDELINES FOR PEAT PROVISION IN ENGLAND

Paragraph	MPG13 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	The Government wishes to see indigenous mineral resources developed within its broad objectives of encouraging competition, promoting sustainable economic growth, assisting the creation and maintenance of employment, and protecting the environment. For the economic well being of the country, it is essential that there is an adequate and steady supply of minerals to meet the needs of the community and to foster economic growth. At the same time, the Government recognises that peat is ultimately a finite resource, and that its extraction can have a significant environmental impact (see the UK Strategy for Sustainable Development (Cm 2426 - January 1994)).			
	The implications of sustainable development for minerals planning in general are that avoidable and irretrievable losses of natural resources, such as minerals, should be limited. The objectives of sustainable development for minerals planning are: i) to conserve minerals as far as possible, while ensuring an adequate supply to meet the needs of society; ii) to minimise production of waste and to encourage efficient use of materials, including appropriate use of high quality materials, and recycling of wastes; iii) to encourage sensitive working practices during minerals extraction, and to preserve or enhance the overall quality of the environment once extraction has ceased; iv) to protect designated areas of critical landscape or nature quality from development, other than in exceptional circumstances where it has been demonstrated that development is in the public interest.	✘		
	The Government's objectives for nature conservation are to ensure that its policies contribute to the conservation of the abundance and diversity of British wildlife and its habitats, or minimise the adverse effects on wildlife where conflict of interest is unavoidable, and to meet its international responsibilities and obligations for nature conservation.			
	An essential task for Government, local authorities, and all public agencies concerned with the use of land and natural resources is both to make adequate provision for development and economic growth and to ensure effective conservation of wildlife and natural features.			
	The Biodiversity Action Plan has set out underlying principles and objectives, to conserve and enhance biological diversity within the UK, and to contribute to the conservation of global biodiversity through all appropriate mechanisms. Objectives for conserving biodiversity are: i) To conserve and where practicable to enhance: a) the overall population and natural ranges of native species and the quality and range of wildlife habitats and ecosystems; b) internationally important and threatened species, habitats and ecosystems; c) species, habitats and natural and semi-natural habitats that are characteristic of local areas; d) the biodiversity of natural and semi-natural habitats where this has been diminished over recent past decades. ii) To increase public awareness of, and involvement in, conserving biodiversity. iii) To contribute to the conservation of biodiversity on a European and global scale.			
	However, the Government wishes to continue to encourage the development of alternatives to peat for both the less demanding uses and of more specialised alternatives for more demanding uses…			
42	<u>Government Policies in Respect of Peatland in England</u> The Government's policy for peatlands in England is to: i) conserve a sufficient range, distribution and number of all peatland habitats, representing part of the critical natural capital of the country; and promote the wise use of the wetland resource within the nation's peatland heritage; ii) avoid wherever practicable the destruction of important archaeological remains in peatland; iii) enable the horticultural industry to continue to be supplied with peat; and also to encourage the development and use of suitable alternatives so that market needs can be met in different ways; iv) provide a suitable framework for updating old permissions for peat extraction, especially in respect of rehabilitation of sites.			
43	It is therefore the Government's intention that the future extraction of peat in England from any new sites should be restricted to areas which have already been significantly damaged by recent human activity and are of limited or no current nature conservation or archaeological value. Wherever possible, subsequent restoration of such sites should give priority to wetland rehabilitation and to the enhancement of the nature conservation resource.			
44	Government policy, as agreed in Article 4 of the Framework Convention on Climate Change signed in Rio in 1992 and ratified in 1993, is to adopt policies and take corresponding measures to protect and enhance greenhouse gas sinks and reservoirs. Undisturbed peatlands store large amounts of carbon…The presumption in this MPG against the			

Paragraph	MPG13 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	exploitation of peatlands which have not been significantly damaged will therefore help to meet the UK's Rio commitment.			
45	The demands of the horticultural user markets should be met by a combination of home produced peat, imported peat, and alternative materials. The Government's commitment towards sustainable development and using resources prudently means that unnecessary wastage of resources should be avoided. Therefore, so far as possible, peat should be used for higher quality markets, while its use should be avoided or minimised where it is either not needed or not the best material, for example for general soil improving, and mulching. There may be further scope to reduce total usage of materials in some sectors. There should also be encouragement to use alternatives where these are suitable and represent other "sustainability" objectives such as recycling and waste minimisation. The range of alternatives suitable for the more specialised uses may increase as further research is undertaken.			
51	Development Plans: General Considerations In preparing Minerals Local Plans and UDPs, local authorities in appropriate areas should take into account the policies contained in this MPG. They should make provision for the conservation of peatland habitats and for identification of specific sites or areas which meet the criteria for selection for future peat working, as explained in paragraphs 52 to 61. Early discussion with the minerals industry and with English Nature (EN) and English Heritage (EH) in the preparation of plans will be helpful.			
52	Policies for Nature Conservation of Peatland Habitats and for Peatland Archaeology in Development Plans Sites of raised bog and other peatland habitats of key nature conservation importance should be identified in development plans…Planning authorities should seek advice from EN, who have a statutory role in advising on development plan preparation…Plans should also identify principal areas of major archaeological significance after consultation with the County Archaeological Officer (see paragraphs 75 to 77).	✘		
53	Criteria for Selection of Sites for Future Peat Working: General Approach Peat producers, and other suppliers of materials to the user markets, should determine the level of output they wish to aim for in the light of market conditions.	✘		
56	Guidelines for Development Plans MPAs should have regard to all material considerations when determining applications on these areas, including other national and regional policy guidelines.			
57	To conserve a full range of peatland habitats and archaeological deposits, peat extraction from bogs which retain a high level of nature conservation or archaeological interest should be permitted only in exceptional circumstances. These circumstances are only likely to arise where it can be demonstrated conclusively that extraction will not adversely affect the habitats, species or deposits being safeguarded. The lowland raised bogs of high nature conservation interest will primarily relate to sites, or areas within bogs, which are defined in the National Peatland Resource Inventory as land-use classes P1-P4, or where secondary peat surfaces contain valuable peat-forming species (see Annex B). These are areas which retain a primary peat surface or include a significant proportion of species characteristic of a lowland raised bog habitat. The Secretary of State would normally call-in, for his decision, planning applications which are likely significantly to affect these classes of raised bog. The advice of EN will be taken into account in deciding which applications are likely to have such effects. It is not expected that such sites would be identified for extraction in development plans. The archaeological value of all peatland is not yet systematically recorded, but EH has supported extensive survey work in several major areas and the results of this, and other, survey work is available in the Sites and Monuments records maintained by County Archaeological Officers, who should therefore be consulted by MPAs during plan preparation.			
58	When preparing development plans and in considering any applications for their extraction, mineral planning authorities will need to consider the nature conservation interest of these areas or sites. Where the peatland retains a primary surface, which includes a significant proportion of species characteristic of ombrotrophic (bogs) or minerotrophic (fens) conditions, planning permission should, as in the case of raised bogs, only be granted in exceptional circumstances. MPAs should consult EN when determining such cases.			
59	To ensure that as far as possible any areas identified in a development plan for peat extraction can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that sites are:- i) of little or no nature conservation or archaeological value; ii) of economically workable deposits; iii) likely to become available to the minerals industry within the plan period; and iv) are not constrained by other land-use policies (eg high quality agricultural land).			
60	Where the criteria listed above cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. But plans must be clear and unambiguously expressed in accordance with PPG12.			
62	Areas Designated for their Nature Conservation Importance: General Planning authorities must consult EN on any development proposals which are likely significantly to affect these sites (see PPG9 "Nature Conservation").			

Paragraph	MPG13 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
	As a matter of policy the Government wishes development proposals affecting potential SPAs and candidate SACs before they have been agreed with the European Commission to be considered in the same way as if they had already been classified or designated.	✘		
	The Government has chosen to apply the same considerations to development proposals affecting listed Ramsar sites as are applied to SPAs and SACs (see PPG9).			
69	Nature Conservation, Including Conservation of the Natural Beauty and Amenity of the Land, in Development Plans Structure Plans and part I of unitary development plans set out general policies and proposals on key strategic issues, taking account of the appropriate Published: 10 May 2002 national and regional policy guidance. They should identify key sites of nature conservation importance, such as SSSIs, NNRs, SPAs, SACs and Ramsar sites, to establish a strategic framework and exemplify the particular characteristics of nature conservation interest in the plan area in their national and international context. Policies to be applied to these sites should reflect their relative significance and place particular emphasis on the protection of internationally important sites. The detailed policies in local plans and part II of unitary development plans should conform to this framework.			
70	Structure plans, local plans and UDPs must include policies in respect of the conservation of the natural beauty and amenity of the land. Arising from article 10 of the Habitats Directive, regulation 37 of the Habitats Regulations states that such policies shall include policies encouraging the management of features of the landscape which are of major importance for wild flora and fauna. Suitable planning conditions and obligations may promote such management (for further advice see PPG9 "Nature Conservation").			
71	National Parks and Areas of Outstanding Natural Beauty Planning Policy Guidance Note 7 - "The Countryside and the Rural Economy" (PPG7) provides detailed Government planning policies for development in National Parks, the Broads and AONBs. The same policies apply to the New Forest Heritage Area. The Government considers that major developments should not take place in these areas save in exceptional circumstances. Because of the serious impact that mineral developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all mineral developments should be demonstrated to be in the public interest before being allowed to proceed.			
	Consideration of mineral applications in such areas should therefore include an assessment of: i) the need for the development in terms of national considerations of mineral supply; and the impact of permitting the development, or refusing it, on the local economy; ii) whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iii) any detrimental effect of the proposals on the environment and landscape, and the extent to which that should be moderated; iv) in the case of extensions to existing workings, the extent to which the proposal would achieve an enhancement to the local landscape.			
	Proposals for mineral working also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance Note 2 -"Green Belts" (PPG2). Mineral extraction need not be inappropriate development in Green Belts; it need not conflict with the purposes of including land in Green Belts provided that high environmental standards are maintained and that the site is well restored.			
76	Archaeological and Other Cultural Interests The peat industry should, wherever practical, ensure that important archaeological and historic remains or features are physically preserved, and MPAs should have regard to the desirability of preserving the wider historic landscape (as defined in PPG15, paragraph 6.40) and of the archaeological heritage when determining planning applications…There should be early consultation with the County Archaeological Officer (listed in PPG16). Where physical preservation is not practical, MPAs should ensure that appropriate provision is made for the recording of archaeological remains, the conservation of significant artifacts and the publication of scientific results.			
77	Some of the most important sites in peatland may be scheduled as ancient monuments (Ancient Monuments and Archaeological Areas Act 1979), in which case scheduled monument consent (SMC) from the Secretary of State for National Heritage, who is advised by EH, must be obtained before any work can commence.			
78	Agricultural Land The Government's policy, as set out in PPG7, is that the best and most versatile agricultural land is a national resource for the future and considerable weight should be attached to protection of such land against irreversible development.			
79	Therefore, when considering the allocation of land for mineral development and in deciding any application for planning permission affecting agricultural land the agricultural implications must be considered together with the environmental and economic aspects, and the feasibility of a high standard of restoration.			
81	Forestry The scope of the Government's forestry and environmental policies for woodlands includes encouraging the establishment of new woodlands which enhance the character and appearance of landscapes and promoting the restoration of derelict land to woodland.			

Paragraph	MPG13 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
83	Other Developments Affecting Peatlands Careful consideration should be given to the need for any other types of development to take place on peatlands.			
89	Treatment and Reviews of Existing Permitted Extraction Sites Wherever practical, a priority for after-use schemes should be to provide areas for nature conservation unless a different after-use is already specified by the planning permission and remains technically achievable and appropriate. However, this may not always mean re-creating the conditions which would lead to the re-establishment of a raised bog system. The topics to be covered in rehabilitation and after-use schemes should include: the phasing of remaining extraction; hydrology, water controls and drainage; depths of peat and its characteristics; underlying geology; extraction methods; preservation or recording of archaeological remains; final excavated site topography; vegetation protection, regeneration and management; methods and timescales of site management.			
90	For some sites the terms of existing legal agreements between EN and a site owner or operator should be drawn on in the preparation of schemes to submit to the MPA.			
91	Where an existing site under consideration forms part of a raised bog which also retains areas of nature conservation or archaeological importance, there should be appropriate safeguards to minimise the risk of damage to such areas. In some cases this may include the need to introduce buffer zones between the worked and undisturbed areas; but such measures should be proportionate to the importance and size of the undisturbed areas and their conservation and/or archaeological value.			
92	Considering Individual Planning Applications MPAs should have regard to all material considerations when determining applications, including this Guidance Note and relevant policies in development plans. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, archaeological, agricultural, landscape, traffic, site restoration and other effects of the proposals that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them as appropriate.			
96	Mineral planning authorities should have regard to the guidance given in paragraphs 52 to 61.			
98	Transport The Government would like to see as much freight as possible carried by rail or waterway rather than by road wherever possible.			
99	Working Practices, Restoration Aftercare and After-use It is established Government policy that restoration and aftercare will be required to make mineral workings environmentally acceptable and fit for beneficial after-use. This may include restoration to peatland habitats, agriculture, forestry, or other forms of amenity use. Applications for extraction of peat need to include information which demonstrates that the site can be restored satisfactorily; and if there is serious doubt whether a new extraction proposal can meet this requirement then it is doubtful whether permission for working should be given. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.			
100	Reinstatement of sites to a condition suitable for an appropriate after-use should be an integral part of the planning of peat extraction.			
101	Implementation and Review This Guidance Note will provide the basic framework for the planning for provision of peat and alternatives for soil improvers and growing media. It will be taken into account by the Secretary of State when considering development plans and individual applications which come before him for decision.			
102	MPAs should take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of materials in a manner compatible with environmental objectives. The plans should also provide guidance on the environmental objectives and the development control criteria which will be applied.			
103	The peat industry should endeavour to ensure that proposals for mineral development are consistent with this Guidance Note and that they are brought forward at the right time. The industry is also responsible for achieving a high standard of operation while a site is being worked and for restoring the site when working has finished.			
104	This Guidance Note has been based on the best information currently available. It will need to be kept under review and updated to reflect changes in demand, development of alternatives and environmental standards			

MPG15: PROVISION OF SILICA SAND IN ENGLAND

Paragraph	MPG15 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
17	Regional Position MPAs in other areas should also take account of this guidance in drawing up minerals local plans.			
28	National Policy Framework: Supply The Government believes that for the economic well-being of the country it is essential that the silica sand consuming industries continue to receive an adequate and steady supply of indigenous raw material so that they can continue to meet the needs of the community for products which use silica sand in their manufacture. It is important that supplies to the manufacturing sector should be provided in the most environmentally acceptable way and with regard to the principles of sustainable development.			
30	Sustainable Development For silica sand, this means that the planning system should ensure that the best and most efficient use will be made of the available resources, so that the extraction of new reserves is limited to what is necessary to meet the needs of the current generation; and that the overall quality of the environment affected by silica sand extraction should be maintained or improved over time. Silica sand deposits should not be sterilised by other forms of development which would make them unavailable for use by future generations without good land-use planning reasons. It is desirable that high grade silica sands should as far as possible be conserved for use where they are required.			
31	Use of Materials It is important that silica sand resources should be used as efficiently as possible and that unnecessary wastage of resources should be avoided. Within the general definition of silica sand, there are certain high grade materials which, wherever possible, should be reserved for industrial end-uses which require such sand and for which there is no readily available alternative. …It is in the national interest that high grade silica sand should not be wasted and that its use in the construction industry should be minimised.			
32	Recycling MPAs and the extracting and consuming industries should therefore consider what steps they can take to encourage re-use/recycling where there are environmental benefits to be gained.			
	In recent years, the glass and foundry industries have made efforts to recycle, both to save sand and to reduce energy consumption. The Government wishes to encourage this and looks to the consumer industries to monitor the amounts of their products which are re-used or recycled and, where appropriate, to set targets for increased re-use/recycling			
	The Government encourages greensand operations to aim as far as possible to achieve a high level of recycling. In the case of resin sand operations, the Government encourages industry to strive for technological advances which will increase the amount of recycling of this type of sand.			
	The consumer industries are encouraged to explore further the scope for such innovation, including technology which would enable the quantities of silica sand required to be reduced further.			
40	Silica Sand Provision in Development Plans In carrying out their development plan functions, local authorities in areas which have historically produced silica sand, or are known to contain silica sand deposits, should take into account the policies contained in this MPG. They should recognise the material scarcity of silica sand and also aim to make provision in their development plans for an appropriate level of production which takes account not only of recent production levels in the area, but also of regional and national needs, through the identification of specific sites and the inclusion of preferred areas or areas of search.			
41	To ensure that the areas identified in the development plan can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that the land is: i. underlain by potentially economically workable deposits of mineral; and ii. likely to become available to the minerals industry within the plan period. Where these points cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. Plans must be clear and unambiguously expressed in accordance with PPG12.			
42	In order to assist in the delineation of these areas in development plans, the silica sand industry should co-operate with MPAs wherever possible by providing information about the location of mineral resources in their areas.			
45	Landbanks However, MPAs in areas containing silica sand deposits need to make an appropriate contribution to national requirements and should therefore aim to maintain landbanks of silica sand permissions, as far as this is possible and realistic, provided that the industry comes forward with suitable applications.			

Paragraph	MPG15 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
47	Due to the national need for silica sand, it is important that each production site is adequately provided for, unless exceptional circumstances prevail. In practice, this will mean that most sites will require a reasonable level of reserves. MPAs should aim therefore to ensure that landbanks of at least 10 years are maintained for individual sites. However, in operating this policy, MPAs will also need to consider the Government's general policy of encouraging competition. The need for the mineral must be balanced against environmental constraints and there may be overriding environmental reasons why the stock of permitted reserves at some sites may not be replenished as they are used up. Care and flexibility will be needed in addressing these issues. In practice, there may be difficulties as production data may be confidential at site level, but it may be difficult to calculate landbanks or to make specific provision in mineral local plans without this information. It will therefore be in both the MPAs and industry's interests to maintain a dialogue and informed analysis of actual need and supply.			
	In the case of significant new capital investment by the industry in existing or new sites, it may be necessary for the plant to be provided with a stock of permitted reserves to provide for at least 15 years, or substantially longer than this, for greenfield sites, depending on the circumstances.			
52	The landbank requirement should be calculated by multiplying the average of the last 3 years' production for which figures are available by the appropriate number of years or by reference to levels of provision set out in the development plan. The calculations should have regard to the quality of sand and the use to which the material is to be put.			
53	Safeguarding Silica sand is a scarce resource and MPAs should, as far as possible and in co-operation with other planning authorities, safeguard deposits which are, or may become, of economic importance, against other types of development or other constraints which would be a serious hindrance to their extraction.			
54	It is essential to consider the need for silica sand over a longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the timescales and scale of investment of the proposed mineral working in order to prevent undue delay. Where it is possible to extract silica sand prior to some other more permanent form of development this should be encouraged unless there are good planning reasons for not doing so. MPAs may define Mineral Consultation Areas (MCAs) in their plans. These enable county and district councils to liaise where surface development would be likely to affect or be affected by the winning and working of minerals. MPG1 (paragraphs 36-39) provides further advice on MCAs.			
63	Considering Individual Planning Applications: General Planning applications should be determined in accordance with the development plan unless material considerations indicate otherwise. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered the potential effects when preparing planning applications and has sought to mitigate them as appropriate.			
64	Assessment of Need and Supply As far as silica sand is concerned, authorities should have regard to the balance of real need and real supply. But landbank calculations and estimates of real supply can seldom be exact and decisions on individual applications should not be determined on an over-precise calculation of whether supply matches the landbank requirement.			
65	In considering applications, consideration should be given to the position in respect of permitted reserves and whether the particular nature and qualities of the silica sand, such as suitability for particular end-use not met by other available sources in the area or region, in itself justifies granting permission.			
66	It is important to draw a distinction between the reasons for a landbank as discussed in paragraphs 43-52 above and the need for the size of a particular permission to reflect the levels of capital investment required at specific sites.			
69	Environmental Effects The silica sand industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns on site operation and restoration. Any environmental damage or loss of amenity caused by mineral working should be kept to a minimum.			
70	Operators Proposals In considering proposals for minerals development, authorities will wish to satisfy themselves that the operator's proposals for managing the site, and for restoration and aftercare, will achieve high standards of operating and reclamation practice in accordance with modern planning requirements…MPAs should thus have regard to the practicality of the proposal before them.			
74	Transport Planning authorities should, individually or collectively, have regard to these factors when drawing up policies in their development plans on such matters as transport modes, routing and the safeguarding of freight depots.			

Paragraph	MPG15 Policy (Abridged)	Suffolk County Council- Minerals Core Strategy	The Broads Authority- Core Strategy	LB Richmond Upon Thames- Core Strategy
75	Discussions should take place with MPAs at an early stage on how traffic generated by the proposal will be managed to minimise environmental disturbance.			
77	Planning authorities should, as far as they reasonably can, safeguard existing rail head facilities and encourage new ones.			
78	Water Interests MPAs and the industry should take into account the body of legislation in relation to water supply, pollution control and land drainage…The Environment Agency should be consulted about all new development proposals. Where working would take place below the natural water table applications will need to include proposals for a suitable aftercare.			
79	Working Practices, Restoration, Aftercare and After-use Applications for extraction of minerals such as silica sand need to include information which demonstrates that the site will be restored satisfactorily.			
80	Planning applications should include comprehensive plans and statements as to how sites will be progressively worked with a view to achieving particular restoration enabling appropriate after-use to take place.			
82	However, all planning applications should contain sufficient detail of working and restoration methods and programmes to allow an assessment to be reached on the viability of the application and of proposals to achieve the intended after-uses. Operators should therefore draw up Quarry Plans to accompany planning applications.			
83	Where possible working and reclamation should be in a progressive manner……However, the aim should be to minimise the area open and disturbed at any one time and, where reasonably practicable, to secure progressive restoration of the site. Care should be taken to conserve all soil and soil-making materials suitable for use in restoration.			
84	Whether a wet after-use is acceptable will need to be considered alongside the policy on agricultural land set out at paragraphs 61-62 and in consultation with the Environment Agency.			
85	MPAs and the industry should bear in mind opportunities for habitat creation and enhancement even where nature conservation may not be the primary end-use of a site.			
88	Implementation MPAs must take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of silica sand in a manner compatible with environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied.			
89	The industry should endeavour to ensure that proposals for mineral development reflect this Guidance Note and that they are brought forward at the right time. The industry is also responsible for drawing up quarry plans, in consultation with the mineral planning authorities; for achieving a high standard of operation while the site is being worked; and for restoring the site when working has finished.			

Appendix 4 Local Development Document matrices continued...

CUMBRIA COUNTY COUNCIL, WAKEFIELD METROPOLITAN BOROUGH COUNCIL, LANCASHIRE COUNTY COUNCIL, LEICESTERSHIRE COUNTY COUNCIL AND NORTH YORK MOORS NATIONAL PARK

Key:

✓	Policy integrated
✖	Policy not integrated
	Not Applicable

MPS1: PLANNING AND MINERALS

Paragraph	MPS1 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
11	Exploration Consider carefully applications for mineral exploration in order to avoid or minimise adverse impacts on the environment.							
12	Survey Use the best available information on mineral resources within their areas and consider the social, environmental and economic benefits and constraints of working them.							
	Undertake regular assessments of the reserves for which planning permission has been granted for all mineral workings in their areas, taking into account the need for, distribution, production and uses of, each type of mineral, while maintaining mineral operators' reasonable needs for commercial confidentiality.							
	Assess the range, volumes and availability of waste material which may exist within reasonable proximity and which could provide suitable alternatives to primary minerals							
13	Safeguarding Define MSAs in LDDs	✓	✓	✓	✖	✓	✓	✓
	Encourage prior extraction of minerals.	✖	✓	✓	✖	✓	✓	✖
	In two-tier planning areas, include policies and proposals to safeguard mineral resources within MSAs in county LDDs and show MSAs in district LDDs. Counties should define MCAs and should be reflected in district LDDs.	✓	✓	✓	✖	✓	✖	✖
	District councils responsible for spatial planning of land defined in MSAs should not normally include policies and proposals in their LDDs for non-minerals development in those areas, or sensitive development around safeguarded mineral areas, where such policies would affect the potential for future extraction of minerals.							
	Safeguard existing, planned and potential rail heads, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals.	✖	✖	✖	✖	✖	✖	✖
	Identify future sites to accommodate the above facilities and reflect any such allocations in the LDDs of district councils in two-tier planning areas.	✖	✖	✖	✖	✖	✖	✖

Paragraph	MPS1 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
	Safeguard existing, planned and potential sites for mineral handling, processing and distribution. Where appropriate, identify future sites for these uses and reflect any such allocations in the LDDs of district councils.	✘	✘	✘	✘	✘	✘	✘
14	Protection of heritage and countryside Where minerals development is proposed within, adjacent to, or where it is likely to significantly affect a European site (potential and classified SPA, candidate and classified SAC and listed Ramsar Sites), take account of the advice contained in PPS9 and the accompanying joint ODPM/Defra Circular.	✓	✓	✓	✓		✘	✓
	Do not permit major mineral developments in National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites except in exceptional circumstances.							
	Consideration of such applications should therefore include an assessment of: i the need for the development ii the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need for it in some other way; iii any detrimental effect on the environment, the landscape and recreational opportunities.							
	Do not normally grant planning permission for a proposed mineral development on land within or outside a SSSI, if it is likely to have an adverse effect on a SSSI.	✓	✘	✓	✓	✓	✘	✓
	Ensure that the statutory protection given to many individual wildlife species, and the special protection afforded to European protected species, is fully taken into account when considering mineral proposals which might affect them.	✓	✓	✓	✓	✓	✓	✓
	Consider carefully mineral proposals within or likely to affect regional and local sites of biodiversity, geodiversity, landscape, historical and cultural heritage.	✓	✓	✓	✓	✓	✓	✓
	There is a general presumption against inappropriate development in the Green Belt, which should not be approved except in very special circumstances, mineral extraction need not be inappropriate development. However, in permitting mineral developments in Green Belts, authorities should ensure that high environmental standards are maintained during operation, and that sites are well restored to after-uses consistent with Green Belt objectives. All mineral-related developments in the Green Belt should be assessed against the policies in PPG2.			✓	✓	✘		
	Adopt a presumption in favour of the preservation of listed buildings, nationally important archaeological remains, if mineral proposals would cause damage or have a significant impact on them, unless there are overriding reasons of national importance for the development to proceed.	✓	✓	✓	✓	✓	✓	✓
	Do not permit mineral proposals that would result in the loss or deterioration of ancient woodland, unless the need for, and benefits of, the development in that location outweigh the loss of the woodland habitat.	✘	✓	✓	✓	✘	✓	✘
	Take account of the value that existing woodland offers in terms of amenity and habitat, when considering mineral proposals.	✘	✓	✓	✓	✘	✓	✘
	Where significant development of agricultural land is unavoidable, seek to use areas of poorer quality land in preference to that of a higher quality, except where this would be inconsistent with other sustainability considerations.	✘	✘	✘	✓	✘	✓	✘
	Take account of the value of the wider countryside and landscape.	✓	✓	✓	✓	✓	✓	✓
	Have regard to the positive or negative effects that minerals operations may have on rural communities and the extent to which adverse impacts of such operations could be moderated.	✘	✓	✘	✘	✘	✘	✘
15	Supply Identify at the regional level, those minerals which are of national and regional significance and include policies for them in RSS.							

Paragraph	MPS1 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
	Aim to source mineral supplies indigenously.	✘	✘	✘	✘	✘	✘	✘
	Before considering the extraction of primary materials, take account of the contribution that substitute or recycled materials, mineral products and marine dredged aggregates would make to the supply of materials.	✓	✓	✓	✘	✓	✓	✘
	Ensure the best integration of social, environmental and economic costs and benefits is achieved, through applying the principles of sustainable development, by carefully considering how best to maintain an adequate and steady supply of minerals for the economy and society, commensurate with protecting the environment and securing the prudent use of natural resources, and set out policies to achieve this in RSSs and LDDs.	✓	✓	✓	✘	✓	✓	✓
	Identify sites, preferred areas and/or areas of search, having taken account of environmental considerations, to provide greater certainty of where future sustainable mineral working will take place.	✘	✘	✘	✘	✓	✘	✘
	Consider the benefits, in terms of reduced environmental disturbance and more efficient use of mineral resources, of extensions to existing mineral workings rather than new sites.	✘	✘	✘	✘	✘	✓	✘
	Take account of the benefit, including the reduction in carbon emissions, which local supplies of minerals would make in reducing the impact of transporting them over long distances by road.	✓	✓	✓	✘	✓	✓	✘
	Recognise the important role that small quarries can play in providing historically authentic building materials in the conservation and repair of historic and cultural buildings and structures.	✘	✘	✘	✘	✘	✘	✓
	Where extraction of more than one mineral from a site is proposed, consideration should be given to any relevant planning guidance specific to each mineral.							
	Provide for the maintenance of landbanks, i.e. appropriate levels of permitted reserves, for non-energy minerals as far as is practicable from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage sites.	✓	**Policy contained in Core Strategy**	✘	✘	✓	✓	✘
	Enable the minerals industry, so far as is practicable, to secure productivity growth and high and stable levels of employment, which are central to long-term economic performance and rising living standards.							
16	<u>Bulk transportation</u> Seek to promote and enable the bulk movement of minerals by rail, sea or inland waterways to reduce the environmental impact of their transportation.	✘	✓	✓	✘	✓	✓	✘
	Promote facilities at ports and rail links that have good communications inland, so that bulk minerals can be landed by sea and distributed from ports, as far as is practicable, by rail or water.	✘	✘	✓	✘	✘	✘	✘
	Safeguard and promote rail links to quarries where there is potential to move minerals by rail.	✘	✘	✘	✘	✓	✘	✘
17	<u>Environmental Protection</u> Seek to protect and enhance the character of surrounding rural and urban areas by careful planning and design of any proposals for minerals development.	✓	✓	✓	✘	✓	✓	✓
	Encourage mineral operators to adopt sound working practices to prevent/ minimise, environmental impacts to acceptable levels during the preparation, working and restoration stages.	✘	✘	✘	✘	✓	✓	✘
	Encourage mineral operators to incorporate and maintain good environmental management practices into their company procedures and apply them during the operation of their sites.	✘	✘	✘	✘	✓	✓	✘
	Require mineral operators to seek and maintain effective consultation and liaison with the local community before submitting planning applications and during operation, restoration and aftercare of sites.	✘	✘	✘	✘	✘	✘	✘

Paragraph	MPS1 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
	State the criteria to be used in assessing mineral proposals and in formulating planning conditions, to ensure that permitted operations do not have unacceptable adverse impacts on the environment or human health.	✓	✘	✘	✘	✓	✘	✘
	Ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations caused by mineral extraction are in conformity with national guidance and are controlled, mitigated or removed at source, so as to reduce to an acceptable level any potential adverse impacts on neighbouring land and property.	✘	✓	✓	✓	✓	✓	✓
	Encourage the establishment of mineral site transport plans in consultation with the local community, dealing with matters including routing, off-site parking, considerate driving and complaints procedures.	✘	✘	✘	✘	✘	✘	✘
	Consider in association with the EA, the potential for mineral developments, individually or cumulatively, to affect the flow, quality and quantity of surface and groundwater supplies and the water table, taking account of best available options in preventing leachate generation and water pollution.	✘	✓	✘	✘	✘	✓	✓
	Ensure, in association with the EA, that in areas at risk of flooding, mineral extraction proposals do not have a significant adverse impact on flood flows or flood storage capacity. Operators should demonstrate that mineral working should not materially increase the risk of flooding at other properties or locations and, where practicable, should increase flood storage capacity.	✘	✓	✘	✓	✓	✓	✓
	Ensure that proposals for mineral extraction and the storage and tipping of mineral wastes are designed, and appropriate monitoring procedures set up, to ensure that the operation and restoration of the site does not create land instability and help prevent pollution of soil, air, surface water and groundwater.	✘	✓	✘	✘	✘	✘	✘
	Ensure that proposals for mineral extraction from coastal cliffs, beaches and dune systems do not adversely affect the stability of the coastal environment, increase the rate of coastal erosion or vulnerability to flooding, or affect sensitive habitats, landscapes or Heritage Coasts.	✘	✘			✘		
18	<u>Efficient use</u> Encourage the efficient use of all minerals and alternatives to them.	✓	✓	✓	✓	✓	✓	✓
	Encourage high quality materials to be used for appropriate purposes, but taking account of the need to avoid undue delays to site reclamation.	✓	✘	✘	✘	✓	✘	✘
	Minimise the amount of minerals waste produced in extraction, handling, processing and stockpiling.	✘	✘	✘	✘	✘	✓	✘
	Maximise the potential for minerals waste to be used for recycling or in-site restoration, but if not required for these purposes and where practicable, identify a market for its potential use.	✘	✓	✘	✘	✓	✓	✓
19	<u>Restoration</u> Take account of the opportunities for enhancing the overall quality of the environment and the wider benefits that sites may offer, including nature and geological conservation and increased public accessibility	✓	✓	✓	✘	✓	✓	✓
	Consider the opportunities that sites may offer for the development of new woodland areas and for providing networks of habitats.	✘	✓	✘	✘	✘	✓	✘
	In order to avoid the possibility of mineral working resulting in dereliction, ensure land is reclaimed at the earliest opportunity and that high quality restoration and aftercare of mineral sites takes place through the provision of guidance on suitable or preferred after-uses and reclamation standards, and the use of conditions and legal agreements, as appropriate.	✘	✓	✘	✘	✘	✓	✘
	Ensure proposals for restoration and aftercare of sites include details of appropriate phasing of progressive restoration, final landform and landscape and monitoring procedures.	✘	✓	✘	✘	✘	✘	✘
	Develop a strategy for inactive sites with planning permission for future working, which are considered unlikely to be reactivated in the foreseeable future.	✘	✘	✘	✘	✘	✘	✘

Paragraph	MPS1 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
	Maintain or improve the Public Right of Way network around restored mineral sites as far as practicable.	✘	✓	✘	✘	✘	✓	✓
	Do not seek or require bonds or other financial guarantees to underpin planning conditions, except as set out in MPG7.							
	Where restoration of mineral workings is through landfill or to a wetland habitat, consult the owner or operator of civil and military aerodromes within 13km, in order to assess the likelihood of increasing the bird strike hazard.							
	Annex 1: Aggregates							
3.2	RPBs should apportion the Regional Guidelines to the local authority level in collaboration with their constituent MPAs, taking account of technical advice from the RAWPs. The apportionment should be subject to sustainability appraisal, incorporating strategic environmental assessment.							
3.3	RAWPs will undertake annual monitoring of aggregates reserves and supply and will prepare commentaries on results, especially supply and demand, for the Department and the RPBs. Where necessary, RAWPs should liaise with the Regional Technical Advisory Bodies on planning for the management of wastes.							
3.4	RPBs must have regard to the current National and Regional Guidelines for Aggregates Provision in England, in preparing RSS. They should use the process of reviewing and revising RSS to update sub-regional apportionments. If a MPA notifies the RPB that it is unable to identify sufficient resources to meet the apportioned supply over the plan period at acceptable environmental cost, the RPB should consider the consequences for supply and demand within the region taking advice from the RAWP, and consulting the Department if there are likely to be national implications. A shortfall in one part of a region should, where practicable, be made up for elsewhere in the same region.							
3.5	The Secretary of State will, where appropriate, intervene in a RSS that does not take full account of the regional aggregates guidelines and of agreed sub-regional apportionments.							
3.6	In preparing their LDDs, MPAs should make provision for the sub-regional apportionment of the current National and Regional Guidelines for land-won aggregate in the approved RSS or, if there is not an approved RSS, as agreed by the RPB and endorsed by the Secretary of State.	✓		✓		✓	✓	✓
	Provision should take the form of specific sites, preferred areas and/or areas of search identified in LDDs. An approach to this work is set out in the MPS1 Practice Guide. Specific provision may need to be made for aggregates that meet particular or demanding specifications, such as those for high polished stone value, building or asphalting sand.	✓	✘	✓	✘	✓	✓	✘
3.9	It is important that, once identified, the main options considered for making the agreed provision are subject to sustainability appraisal before leading to a preferred option in LDDs.							
3.10	If it is not possible for a MPA to identify sufficient resources in its area to meet the apportioned supply over the plan period at acceptable environmental cost, this should be reported to the RPB as soon as possible.							
	The Secretary of State will, where appropriate, intervene in the preparation of LDDs where MPAs do not pay due regard to the agreed apportionment.							
4.1	MPAs should use the length of the landbank in its area as an indicator of when new permissions for aggregates extraction are likely to be needed. The landbank indicators are at least 7 years for sand and gravel and at least 10 years for crushed rock. A longer period may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets, and productive capacity of permitted sites. A landbank below these levels indicates that additional reserves will need to be permitted if acceptable planning applications are submitted. Because individual sites, when permitted, need sufficient reserves to be economically viable, consideration of the landbank needs to be flexible enough to allow for this. A large existing landbank bound up in very few sites should not be allowed to stifle competition.							

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4.2	MPAs should consider and report on the need to review policies in their LDDs as part of their annual monitoring report to the Secretary of State. This should be done in time to allow for action before the remaining provision falls below the agreed apportioned level. If review and updating take place regularly then maintaining a landbank beyond the end of the plan period is not an issue.							
4.3	If, taking all of these matters into account, existing landbanks are judged by a MPA to be excessive: • new planning permissions should only be given where it can be shown that demand could not be met from the existing permitted reserves, for example, for reasons of type and quality of the aggregate and/or distance to the market; • the industry should consider voluntarily agreeing to revocation, or prohibition orders, in respect of planning permissions at sites that are unlikely to be worked again.							
4.4	MPAs should carry out, in consultation with the RAWPs and other relevant bodies, and publish the results of, regular reviews of sites that have not been worked for 10 years or more, to assess whether production is likely to begin again. Sites that individual operators agree are unlikely to be worked again should be excluded from the landbank calculation, and they should be made subject to prohibition orders to remove the possibility that subsequent changes in ownership could unexpectedly revive development proposals.							
	Where there is a distinct and separate market for a specific type or quality of aggregate, for example high specification aggregate, asphalting sand, building sand or concreting sand, separate landbank calculations and provisions for these may be appropriate.	✘	✘	✘	✘	✘	✘	✘
5.1	It is Government policy to encourage the greatest possible use of alternatives to primary aggregates. The National and Regional Guidelines for Aggregates Provision in England set a target that will be reviewed annually and revised when necessary. Guidance on planning for waste management is contained in Planning Policy Statement 10.							
5.2	Where mineral or other wastes suitable for use as aggregates have been deposited in tips, without the benefit of planning permission for future use, and these have revegetated and blended into the landscape, any applications for working of these materials should be dealt with in the same way and, if permitted, worked to the same standards as a successful new application for primary mineral extraction.							
6.1	It is Government policy to encourage the supply of marine-dredged sand and gravel to the extent that environmentally acceptable sources can be identified and exploited, within the principles of sustainable development.							
7.1	Identifying, assessing, operating and restoring borrow pits should be undertaken to the same standards as those for long-term mineral workings and should be subject to similar levels of consideration of environmental impacts.	✘	✓	✘	✘	✘	✓	✘
	Annex 2: Brick Clay							
3.1	MPAs should ensure that brick clay resources are safeguarded in accordance with MPS1. Some types or qualities of brickclay that have desirable properties, especially Etruria Marl and fireclay, are nationally, regionally or locally scarce. Relevant MPAs should safeguard acceptable sources of Etruria Formation clays and fireclays from other types of development and should, where racticable, encourage prior extraction of clay where built development is planned.	✓	✓	✓	✘	✓	✓	
3.2	It is generally desirable that brick clay should be extracted as close as practicable to the brickworks that it is supplied to. MPAs should initially consider the potential for extraction of brick clay close to the works and the potential for extensions to existing planning permissions to maintain supplies. Where supply is needed from more distant sources these may exist in a MPA's area other than that where the brickworks is located. The relevant LPA should therefore liaise in planning for appropriate sources of provision. Where a works is likely to require supplies from more than one region, the relevant RPBs should assist in the necessary discussions.	✘	✘	✘	✘	✘	✘	✘
3.3	MPAs should have regard to the need for clay supply for local use and repair of heritage buildings to meet the objectives of PPS1, and should assess the potential for environmentally acceptable extensions to, and replacements for, such sites. Policies should be proportionate to the levels of potential impacts.	✘	✓	✘	✘	✘	✘	✓
3.4	When developing planning policies and considering planning applications, MPAs and LPAs should take account, as appropriate, of: • the need for provision of brick clay from a number of different sources to enable appropriate blends to be made. Where materials	✘	✘	✘	✘	✘	✘	✘

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	for blending need to be supplied from various sources, or for some types of clay that are used in small quantities for blending, it may be necessary to hold stocks of such clay at the brickworks or elsewhere; • the need to provide a stock of permitted reserves to support the levels of actual and proposed investment required for each new or existing manufacturing plant and the maintenance and improvement of existing plant and equipment. This will normally be sufficient to provide for 25 years of production. Separate provision may be needed for particularly scarce clays, such as Etruria Marl and fireclay, that will serve a number of works, sometimes over long distances; • the need to meet the likely level of demand for clay at each manufacturing plant, part or all of which may sometimes have to be fulfilled from another MPA area, to avoid having to meet unforeseen demands in environmentally damaging ways; • in some cases, the scope to use negotiated planning agreements to restrict, if necessary, the use of the clay extracted for brick making to the associated brickworks in order to reduce environmental impacts; and the need to recognise the potential for sales of clay for other uses, particularly engineering purposes, such as lining, daily cover and capping material for landfill sites, the lining of canals, lakes and ponds, as construction fill or as bulk fill suitable for roadway construction or for the manufacture of lightweight aggregate or cement. In some cases, clay pits may be operated mainly or wholly for these other purposes rather than for brick clay extraction.							
3.5	Where scarce reserves of Etruria Formation clays or fireclays cannot be used when extracted, consideration should be given to the potential for stockpiling the material on an environmentally acceptable site, either on or in the ground, until it is needed. Proper account should be taken of the environmental impacts that are associated with stockpiling sites when considering whether these should be provided.	✘	✘	✘	✘	✘	✓	
3.6	MPAs should encourage coal producers to make the best possible use of fireclay reserves including, where practicable, finding a market for any fireclay associated with the coal that is being extracted, so that it remains available for use rather than being replaced in the void during site restoration.	✘	✘	✘	✘	✘	✓	
3.7	Where a brickworks is supplied from a number of clay pits some distance from the works, impacts of road traffic between these and the works should, as far as possible, be minimised through off-road transport, such as field conveyor systems, dedicated haulage routes, and careful consideration of distribution networks and vehicle routes.	✘	✘	✘	✘	✘	✘	
3.8	MPAs should liaise with the Environment Agency and LPAs to ensure that where planning conditions for manufacturing plant are necessary they should complement, not duplicate, conditions contained in IPPC permits.							
	The brick, clay pipe and clay tile manufacturing industry is encouraged to ensure that: • when clays are to be blended, the resulting blend should not contain a proportion of premium clays in excess of that needed for the specified use.	✘	✘	✘	✘	✘	✘	
	Annex 3: Natural building and roofing stone							
3.1	RPBs and the Mayor of London should set out policies in their RSSs or the Spatial Development Strategy in London, for safeguarding nationally, regionally and locally significant building stone resources.							
3.3	Many important sources of building stone have been long disused, and would need a new planning application to be worked again. Important historic quarries should be safeguarded, as far as practicable, where it can be shown: • that the quarry was the original source of stone used in the construction of a historic building or monument; or • that the stone is technically compatible with material in the structure to be repaired; and • that stone from the quarry is, or will be, required for restoration or conservation purposes in the absence of viable alternatives.	✓	✓	✓	✘	✓	✓	✓
3.4	MPAs should consider whether small-scale extraction of building stone might be sustainable at, or close to, relic quarries, some of which have been designated in respect of industrial archaeology, wildlife and geological conservation, where small scale extraction would contribute to repair of historic buildings without compromising the requirement to protect designated site.	✘	✓	✘	✘	✓	✘	✘

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	Any extraction and restoration proposals should have proper regard to the purposes of the designation both during and after extraction.							
3.5	LPAs should notify Natural England and English Heritage when a development proposal is made which affects an old building stone source to provide an opportunity for its significance to be assessed.							
3.6	MPAs and LPAs should have regard to the local, regional and national need for certain building and roofing stones for the conservation and restoration of England's historic built environment where their use is specified: • because of aesthetic or technical properties, particularly where English Heritage advises that stone used for restoration or conservation purposes must be a compatible match, usually from a similar lithological horizon as the stone that was originally used; • to help meet the objectives of PPG15.	✓	✓	✘	✘	✓	✓	✓
3.7	MPAs and LPAs should liaise on and have regard to the local, regional and national need for certain building stones for new construction, within the context of the RSS, where their use is specified because of: • proven durability; • aesthetic or technical properties, particularly where new construction is to take place in the midst of older buildings constructed of a certain stone; and • any design requirements set out in local design guides, planning policies and supplementary planning documents.	✘	✘	✘	✘	✘	✓	✘
3.8	Where an exact match of stone is not possible, potential alternative sources of supply, if any, should be considered.							
3.9	MPAs should, as far as is practicable, identify in their LDDs, quarries of importance to the built heritage, whether disused or active, and describe the approach to be taken to these in terms of minerals and other planning applications.	✘	✘	✘	✘	✘	✘	✘
3.11	Each proposal needs to be considered on the basis of its specific characteristics and potential environmental and landscape impacts, and: • whether formal environmental assessment under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 ("the 1999 EIA Regs") is justified for proposals to develop and operate small stone quarries; and • where proposals to re-activate dormant quarries are submitted, MPAs/LPAs will, under the Reviews of Interim Development Order permissions and Old Mineral Permissions (under the Planning and Compensation Act 1991 and Environment Act 1995 respectively), have to consider updated operating and restoration conditions for the working of the quarries. Similarly, updated conditions for all active quarries will need to be considered as part of the periodic review process under the 1995 Act.							
	…High quality stone suitable for building and/or roofing, particularly that which is scarce and may be required for future conservation work, should not be used for the production of aggregates where lower quality rock suitable for crushing would suffice.	✘	✘	✘	✘	✘	✓	✓
3.14	MPAs, LPAs and minerals operators should consider carefully, in liaison with Natural England and English Heritage, the potential for partial restoration of building stone quarries before the expiry of planning permission for extraction. This should be linked, where practicable, to new opportunities for archaeological, geological, wildlife and industrial heritage conservation and education, but retaining, where practicable, the potential for future access to supplies of small quantities of stone that may be needed at intervals in the future for repair of the historic built environment for which the site in question is an appropriate source.							
	Annex 4: On-shore oil and gas and underground storage of natural gas							

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3.1	The industry should make available to MPAs information on the extent of known reserves of oil and gas, its forward plans and any potential sites for exploration, appraisal or production that it is considering and for which it holds exploration or production licences. However, MPAs should note that much of this information may be commercially sensitive.							
3.2	Conventional oil and gas development broadly consists of 3 phases- exploration, appraisal and production. RPBs should set clear guidance and criteria for location of Conventional oil and gas development (COG) development sites within the areas that are licensed for oil and gas exploration or production. MPAs should include policies in their LDDs that distinguish clearly between the three phases and should also identify any environmental and other constraints on production and processing sites, within areas that are licensed for oil and gas exploration or production, in those documents.	✓	✓	✘	✘	✘	✓	✘
3.4	Seismic Investigations Permitted Development Rights should not be withdrawn without very good reasons.							
3.5	In all cases the industry should fully discuss its proposals with the LPAs and statutory agencies. MPAs and highway authorities should be informed of the intended route for the survey, and prior notification given to residents on the immediate survey route. In two-tier planning areas, where county councils are the MPAs, operators should also ensure that district councils are aware of the intended investigations, and their commencement dates.							
3.7	Drilling Policies should be drafted to ensure that each application to explore will be considered on its own merits, in accordance with the present guidance, and in relation to LDDs and any other relevant material considerations. These considerations should not include any hypothetical future proposal for development of the oil or gas resource.							
3.8	In submitting an application for drilling, the developer should indicate what knowledge has been gained from seismic investigations in selecting the well site. Policies should indicate that, subject to the effects on the environment being appropriately addressed and mitigated, and a satisfactory restoration and aftercare plan prepared, applications for exploration may be favourably considered.							
3.9	Where environmental or other conditions might preclude vertical drilling, MPAs should discuss with the industry the option of employing directional drilling. LDD policies should make clear that this approach will be adopted and that careful consideration will be given to factors such as: • the need for night-time drilling for safety reasons; • locating sites to minimise visual intrusion; • controlling vehicular activity and vehicle routing; • controlling the disposal of mud and other drilling residue; and • controlling noise and light emissions from drilling rigs with particular reference to night-time operations.							
3.10	Section 106 agreements should not duplicate planning conditions or conditions attached to the award of a licence by DTI.							
3.11	Because of the intrusive nature of drilling operations, policies should provide that these will not be permitted close to houses and other noise-sensitive properties unless noise levels from drilling and associated operations can be reduced to acceptable levels.	✘	✘	✘	✘	✘	✘	✘
3.12	Particular care should be taken about siting all types of oil and gas wells close to water supply wells or boreholes.	✘	✘	✘	✘	✘	✘	✘
3.13	Appraisal As with all other forms of development, an application for an appraisal well must be considered on its merits. This consideration should take into account the long-term suitability of the site since such wells may subsequently be required for production purposes. The other factors listed above for exploration wells are equally relevant to appraisal wells. LDD policies should reflect this.	✘	✘	✘	✘	✘	✘	✘

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3.14	Production and Distribution Gathering stations should not be sited where they would have unacceptable adverse environmental impacts.	✘	✘	✘	✘	✘	✘	✘
3.15	Pre-application discussions between the MPA and the industry on potential production proposals are essential. For the larger finds, it will be particularly important to establish how far the envisaged surface production facilities would be sufficient to handle the expected output from the find, or related finds as a whole.							
3.16	Policies should make clear that conditions are likely to be imposed governing, amongst other matters: • timing and method of gas flaring, (also controlled by DTI under the Energy Act 1976); • access; • the direction of vehicles leaving the site; • noise emissions; • prevention of pollution associated, for example, with possible spillages; • the means of disposal of unwanted gas; and • the method by which the end product is to be transported from the well site or gathering station.	✘	✘	✘	✘	✘	✘	✘
3.17	Operators should address all of these points in their planning applications and, where necessary and appropriate, in supporting environmental statements. Where possible, export terminals should be sited where they can feed into a long distance pipeline, or are connected to a railway or water transport, in preference to relying on road transport.							
3.18	Where pipelines are to be used for transporting extracted oil and gas it will be necessary for operators to obtain consent from the appropriate authorities (the relevant MPAs, the Environment Agency and the Health and Safety Executive) for routes, vehicle access, the location of machinery storage areas, and of pipes, pipelaying equipment and other construction materials. In drawing up proposals, operators should avoid environmentally sensitive locations and take account of any potential impacts on nature conservation, for example the movement of animals. Proposals should also take into account the possible implications for agricultural activities, consulting where necessary with associations that represent agricultural interests.							
3.19	For pipelines less than 10 miles in length, planning permission is required from the MPA. Longer pipelines require authorisation from the SSTI under the Pipelines Act 1962, although the usual planning and environmental considerations would be taken into account. The views of the LPAs, the Environment Agency, Natural England, the Health and Safety Executive, landowners and tenants should be sought. Also, a full environmental impact assessment statement would normally be required. On granting authorisation, the SSTI would then direct that planning permission for the pipeline shall be deemed to have been granted. In all cases, it is essential that land affected by pipeline development should be properly restored.							
3.21	Coalbed methane (CBM) MPAs should identify in their LDDs the extent of the coalfield with reserves at depths below the surface of between 200-1500m and of areas which are licensed for CBM by the Coal Authority. The LDDs should also list the principal constraints likely to affect any proposed production and processing sites within those areas.	✘	✘	✘	✘	✘	✘	
3.22	LDDs should make it clear that planning permission for exploration and appraisal does not carry with it any presumption that long-term production from those wells, or that the development of further wells, will be permitted.							
3.23	The main environmental impacts associated with CBM development are similar to those for COG. However, particular attention should also be given to the abstraction of any groundwater and its impacts, as well as the disposal of water produced during well stimulation and production of gas. The Environment Agency must be consulted and the relevant permission(s) obtained before any disposal or abstraction takes place.							
3.24	Accordingly, LDD policies should indicate that: • where initial proposals are environmentally acceptable and accord with the principles of sustainable development, planning	✘	✘	✘	✘	✘	✘	

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	permission might be granted for the initial hub of exploration wells, subject to their removal and restoration, if gas is not found in commercially viable quantities (or they are not needed to keep pumping water to protect production from an adjoining gas area); • this does not extend to the later approval of detailed schemes for production from those wells should the occasion arise; • options for the further development of the area should be presented for consideration in principle at the same time, to ensure that the immediate and potential longer-term environmental impacts of the development are understood by the MPA and that the applicant is aware of the risk of a subsequent refusal of planning permission; • further hubs of wells for the exploration, appraisal or later production phases will require separate applications and permissions on the same basis, supported where necessary by an environmental statement (or supplementary statement) related to the further development for which permission is sought; and • the industry should therefore discuss its proposals fully with the MPA well before a formal planning application is made, so that all the options and longer-term issues can be properly considered.							
3.25	MPAs in coalfield areas should, therefore, encourage capture and use by including appropriate policies in their development documents.	✓	✘	✘	✘	✘	✘	
3.27	Underground coal gasification DTI has examined the opportunities for UCG and its potential contribution to the future UK energy supply. If this source of energy is to be exploited then an experimental UCG development would need to be undertaken. If any such experiment were to be proposed in England, it would be subject to all the usual planning procedures including the Secretary of State's power to call-in applications for her own determination.							
3.28	Because of the absence, so far, of any UCG development in the UK, the technique is not referred to in the Schedules to the 1999 EIA Regulations or the accompanying Circular 02/99.3 However, if a MPA were to receive a pre-application enquiry regarding a UCG proposal it should pay close attention to the potential environmental impacts, both above and below ground, in considering whether an environmental impact assessment is required. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.							
4.4	Underground Storage of Natural Gas Therefore, county and district authorities in areas that have underground gas storage potential should discuss this issue and agree coherent policies for dealing with applications. When applications are submitted, these authorities should agree which are county council matters and which are not, depending on the circumstances of the application, including all the development that is proposed. Unitary and National Park authorities should also, where appropriate, develop planning policies for dealing with applications for underground gas storage.	✘	✓	✘	✘	✘	✘	✘
4.5	MPAs should consider whether there is a need for policies on underground gas storage in their LDDs on the basis of local geological circumstances. Where appropriate, MPAs and LPAs should collaborate in developing these policies, and areas where there might be potential for such storage should be indicated in their LDDs.							
4.6	MPAs should take account of matters concerning surface and underground development associated with gas storage that are material to the determination of the planning application.							
4.7	General issues that should also be taken into account are: • that Government welcomes proposals to increase flexibility in the UK gas market, but is not prescriptive about how this is to be achieved. Proposals are a commercial matter for the market; • the national energy policy benefit of the proposal; • the likelihood that suitable onshore locations for gas storage will be very limited in number, due to the lack of suitable geographical features for underground gas storage, so that alternative possibilities may not be available;	✘	✘	✘	✘	✘	✘	✘

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	• the acceptability of proposals and measures to mitigate the potential environmental • impacts of exploration and development of the proposed facility, in terms of both the surface and subsurface works; and the integrity and safety of underground facilities especially in terms of maintenance of the pressure regime, the prevention of leakage of gas and the avoidance of pollution.							
4.8	It is likely that most applications for significant gas storage facilities will require environmental impact assessment. Applications and any accompanying environmental statements should include adequate information on the suitability of proposed sites for secure and safe containment of gas or the means of making them so, and the avoidance and control of pollution. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.							
4.9	Applicants should confirm with the MPA whether hazardous substances consent under the Planning (Hazardous Substances) Act 1990 is required. The Health and Safety Executive are statutory consultees in the process and would be consulted on whether there are safety grounds for refusal of applications.							

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND

Paragraph	MPS2 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
9	An environmental assessment of an extension or a modification to an existing site should concentrate on the effects of the proposed modification, and take into account operations on the existing site affected by the modification. The assessment should consider if the modification could lead to a level of environmental impact that would be unacceptable for the site as a whole, or if the proposed extension would bring the perimeter of the site closer to existing communities (thereby changing the nature or degree of the impact on existing communities).							
10	Policies and proposals in development plans have a key part to play in meeting the Government's objectives of ensuring that development and growth are sustainable. They should have regard to Planning Policy Statement 1 (PPS1): Delivering Sustainable Development (2005) and Minerals Planning Guidance Note 1 (MPG1): General Considerations and the Development Plan System (1996) (currently under review) which provide advice on planning policy for Local Planning Authorities (LPAs), MPAs and the minerals industry. When, as expected, MPG1 is replaced by Minerals Policy Statement 1 (MPS1), similar regard should be given to this successor document.	✓	✓	✓	✘	✓	✓	✓
11	Development plan policies and proposals for minerals extraction and associated development should take into account: • the impacts of mineral working, such as visual intrusion, dewatering, water pollution, noise, dust and fine particulates, blasting and traffic; • the impacts on landscape, agricultural land, soil resources, ecology and wildlife, including severance of landscape and habitat loss, and impacts on sites of nature conservation, archaeological and cultural heritage value; • the benefits such as providing an adequate supply of minerals to the economy and hence for society (including construction materials needed for the development of national infrastructure and the creation of sustainable communities), creating job opportunities, and the scope for landscape, biodiversity and amenity improvements through mineral working and subsequent restoration; and • the methods of control through planning conditions or agreements to ensure that impacts are kept to an acceptable minimum.	✓	✓	✓	✓	✓	✓	✓
12	Policies and proposals should take into account the level of existing activity and impacts, the duration and nature of proposals for new or further working, and the extent of impacts which a particular site, locality, community, environment or wider area of mineral working can reasonably be expected to tolerate over a particular or proposed period. With respect to an individual site, the effect of all relevant impacts (i.e. of noise, dust, traffic, on landscape etc.) should be considered objectively. Impacts that are acceptable individually should not be regarded as unacceptable in combination without a proper assessment. MPAs should also have regard where relevant to cumulative impacts of simultaneous and/or successive working of a number of sites in a wider area of commercially-viable deposits. These may affect communities and localities over an extended period, depending on the nature, age and size of the site(s) (see paragraphs 24–29).	✓	✓	✘	✘	✓	✓	✓
13	Other development plan policies should ensure that development other than mineral extraction does not encroach on existing mineral operations, thus subjecting that development to a level of environmental impact that may be unacceptable and leading to complaints about the adequacy of planning conditions for the mineral operation concerned.							
14	Before applications are submitted to an MPA for determination, developers should discuss their proposals with the relevant local authorities and any other organisations whose interests may be affected by the proposed development. They should consult the Environment Agency and/or the local authority as regulator in respect of any pollution control requirements. Issues such as noise, traffic, dust, blasting, drainage, access arrangements, working methods, pollution control, landscape, restoration, after-use and stability should be discussed with the appropriate bodies prior to making an application. Developers should consult the Environment Agency to evaluate the hydrological, chemical and ecological impact of any workings on groundwater and surface water supplies.							
	MPAs and developers and their advisers should have regard to the general advice on the use of planning conditions in DOE Circular 11/95 The Use of Conditions in Planning Permission, the advice on planning conditions specific to mineral permissions in Minerals Planning Guidance Note 2 (MPG2): Applications, Permissions and Conditions (1998) and the advice on planning obligations in DETR Circular 01/97 Planning Obligations and any subsequent advice that may be issued which updates and revises these documents.							

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	MPAs should ensure planning conditions are enforceable. They must be precise, capable of being monitored (infringements must be detectable), defined sufficiently for breaches to be provable, necessary, relevant to planning and to the development, and reasonable. The two principal types are: • performance requirements; and • the use of specific ameliorative measures.							
21	Performance Requirements Effective planning requires judgements based upon local circumstances and local objectives. MPAs should set out measurable performance requirements, such as noise or vibration limits, that make clear to operators what is expected of them so they can make their own decisions on the most cost effective way of meeting those criteria, while allowing outcomes to be monitored. MPAs should not specify methods for securing compliance that could inadvertently and unreasonably prejudice the flexibility of the operator's working methods and profitability. Performance requirements should usually be designed to: • achieve a minimum environmental quality; • limit degradation of the environment; and • encourage improvement.	✘	✘	✘	✘	✘	✘	✘
	MPAs should also have regard to the possibility in some situations of requiring the operator to provide accessible monitoring systems, and making audited reporting by the operator (e.g. under an EMS), a condition of the permission. Where appropriate, MPAs and operators should seek to reach planning agreements with owners of sensitive properties to ensure access for monitoring purposes.							
	Amelioration Measures These should be specified as planning conditions to mitigate adverse effects where there is difficulty in defining a performance criterion which can be readily monitored and enforced.							
	MPAs should ensure that the adverse effects of mineral working on neighbouring communities are minimised.							
	Residents living close to mineral workings may be exposed to a number of environmental effects. MPAs must take particular care in respect of any conditions they attach to a grant of permission for working in proximity to communities…Dialogue should take place between MPAs, EHAs, operators and other stakeholders, especially in the local community, to determine appropriate mitigating measures, where these are feasible and would, if applied, allow the development to proceed.							
	The programme of work and/or the location of plant within the mineral working should take account of the proximity to occupied properties, as well as legitimate operational considerations. A programme of work should be agreed which takes account, as far as is practicable, of the potential impacts on the local community over the expected duration of operations.							
	In such cases, MPAs should consider the need to require adequate separation distances. MPAs should require a distance that is effective but reasonable, taking into account: • the nature of the mineral extraction activity (including its duration); • the need to avoid undue sterilisation of mineral resources, location and topography; • the characteristics of the various environmental effects likely to arise; and the various amelioration measures that can be applied. Working in proximity to residential property may be necessary where there are clear, specific achievable objectives such as the removal of instability and preparing land for subsequent development. Such working should be for a limited and specified period, without scope for extension.							
	In these circumstances, the MPA should consider both the need for long-term planning to avoid unnecessary sterilisation of resources, and how the combined impacts at individual sites and the cumulative impacts of further working of the mineral in a							

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	particular area can be reconciled with the need to protect localities and communities from unacceptable consequences of that working (e.g. by the number and timing of permissions, the phasing of workings and restoration, and the attachment of conditions to mitigate impacts).							
	Meanwhile the First Secretary of State looks to all LPAs and to mineral operators to follow the policies it sets out. They should ensure that the environmental impacts of mineral workings are minimised and controlled, and foster good community relations between mineral developers and operators and those living close to mineral workings.							
	MPS2: Annex 1: Dust							
	In formulating plans for mineral extraction or related activity and appraising mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused. The Government looks to the minerals industry to keep dust emissions at a level that reflects high environmental standards and to work for continuous improvement based on best available techniques (BAT).							
	Planning conditions on dust should not duplicate controls placed on the developer under the relevant pollution control regime							
	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action, and MPAs should take due account of this in their decisions on individual applications. MPAs and operators should liaise with the relevant pollution control bodies (i.e. the Environment Agency and Local Authority (LA) Environmental Health Departments) in considering and making decisions on individual applications.							
	The key planning principle is that dust emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should include appropriate proposals for the control and/or mitigation of dust emissions. Those making development proposals should carry out an appropriate dust assessment study (see Appendix 1C), and MPAs should consider the results of such a study to: • establish baseline conditions of the existing dust climate around the site of the proposed operations; • identify site activities that could lead to dust emission without mitigation; • identify site parameters which may increase potential impacts from dust; • recommend mitigation measures, including modification of site design; and • make proposals to monitor and report dust emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.							
	For the meantime, LAs should use the objective to assist in their longer-term planning.							
	When PM10 impact is found to be significant in planning terms but, on balance, does not merit refusal of an application, procedures to monitor and control PM10 should be adopted.							
	Because the activities identified are common to all mineral sites, the Government considers that the research recommendations should be extended to cover all types of mineral workings. In doing so, it recognises that the research was specific to opencast coal sites, which involve significantly more earthmoving than most other mineral workings. The materials excavated also vary with the mineral being worked. In addition, certain quarry processes are controlled under Part I of the EPA 1990 (see Secretary of State's Guidance – Quarry Processes PG3/8/96, DOE 1996) and now, by the PPC Regulations, and it would be for the pollution control system to control dust emissions from these. These factors need to be incorporated into the assessment of potential impact from PM10.							
	The potential impacts of opencast and other mineral activities on particular sites should be highlighted at the scoping stage of a planning application (see Appendix 1C). This should identify any special requirements for the environmental impact assessment (EIA). The likely number and frequency of predicted exceedences of the AQOs, together with the proximity of operations to residential							

Paragraph	MPS2 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
	property and other sensitive uses should constitute a major part of the EIA and the weight this should be given in balancing the benefits of the site against potential impacts. The Arup research (see paragraph 1.2) defined 'remote' as more than 1000m from any residential property or sensitive use (see Table 1A2 in Appendix 1A). The Newcastle research also identifies 1000m as an adequate cut-off point for considering whether additional measures to control PM10 should apply. In deciding a cut off point for individual proposals, MPAs should also consider whether the topography, the nature of the landscape, the respective location of the site and the nearest residential property or other sensitive use in relation to the prevailing wind direction and visibility may justify the distance being tailored to local circumstances, and hence whether a greater or lesser distance may be justified.							
	If within a site the actual source of emission (e.g. the haul roads, crushers, stockpiles etc.) is within 1000m of any residential property or other sensitive use, then a further assessment should examine the likely impacts and the weight they should be given in the decision making process.							
	Previously-measured data should be used in the first instance. Where relevant data is not available, site-related monitoring may occasionally need to be undertaken. The length of monitoring period, the methodology, the number of observations and different weather conditions should be carefully considered (see paragraph 1.9: detailed guidance on monitoring is provided in the LA's Technical Guidance on Review and Assessment (LAQM.TG(03)).							
	MPAs should set out in their local or minerals development documents (or in their mineral plans where these are still in preparation) their policies on dust from surface mineral operations. Plans and policies should contain guidance on those considerations related to dust emissions and control that will be taken into account in assessing planning applications, whilst recognising the range of control and mitigation measures available, including those under Part I of the EPA 1990. They should outline the criteria against which they will assess the environmental acceptability of the expected dust emissions from a proposed surface mineral operation or review the conditions on existing planning permissions. Other mineral policies relevant to the general mitigation of environmental effects and good practices are also likely to be relevant to the control and mitigation of dust including those relating to separation distances, landscaping and screening.	✘	✓	✘	✘	✘	✓	✘
	When considering applications for new mineral development or reviewing conditions on existing permissions, MPAs should have regard to the environmental acceptability of the likely dust emissions, including the cumulative impact at residential properties and on other sensitive uses. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development, together with proposals for appropriate control or mitigation.							
	The control and mitigation of dust (as with other environmental impacts) should be discussed between the mineral operator and the MPA and the LA Environmental Health Department before an application is submitted. This will ensure that all parties are fully aware of all the issues and avoid delays in processing the application.							
	MPAs and mineral operators should ensure appropriate consultations and effective liaison with all stakeholders, including statutory consultees and the local communities potentially affected by dust emissions. In particular, they should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned, as the regulator for quarry processes under the EPA 1990.							
	MPAs should assess the findings from a dust assessment study carried out by the applicant (see Appendix 1C) when determining planning applications or when considering conditions to attach to planning permissions. Pre-planning discussions should have addressed the principal matters relating to the design and layout of the site and these should be reflected in the plans and details of workings.							
	MPAs should consult the EHO for the area on the effects of dust emissions and the adequacy of proposed control and mitigation measures. Where the effects of dust emissions cannot be adequately controlled or mitigated, permission should be refused. MPAs should confirm the residential properties and other sensitive uses that might be affected and the effects of the proposals on them. MPAs should consider the need for, timing, length and frequency of temporary, dusty activities that are outside normal operations, but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.							
	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way as to minimise dust emissions at the source and thereby to control them to acceptable levels. Planning conditions should not duplicate or conflict with any requirements imposed on quarry processes under Part I of the EPA 1990. MPAs should seek to identify the most appropriate control measures to address specific potential dust problems, and attach planning conditions to consents which are precise and							

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	unambiguous. The wording of the condition should make it clear as to when and where the control, or mitigation of dust, is necessary. Conditions should be worded in such a way that contraventions are easy to identify and enforcement action can be readily undertaken if necessary.							
	Planning conditions that seek to mitigate dust through the use of water bowsers or sprays are frequently used by LAs, especially with regard to haul roads. Wherever possible, they should be specific about where and when water bowsers or sprays should be used. The condition could also specify that a chemical dust suppressant or a wetting agent be added to improve dust control. These sorts of condition require liaison with the relevant statutory consultee, in this case the Environment Agency.							
	The Government looks to the minerals industries to keep dust emissions at a level that reflects the highest environmental standards, to work for continuous improvement based on BATs and to reflect the principles set out in this Annex in framing proposals for new development and in reviews of conditions. It expects MPAs to have regard to the principles of this Annex in considering the impacts of dust on the environment and the local community in the Minerals Local Plan (and in future local and minerals development frameworks), and in determining applications and reviewing conditions on existing permissions.							
	MPS2: Annex 2: Noise							
2.1	In formulating plans for mineral extraction or related activity and designing mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused.	✘	✓	✘	✘	✘	✓	✓
2.2	The Government looks to the minerals industry to keep noise emissions to a level that reflects the highest environmental standards and to work for continuous improvement. Its policy is to secure reduced noise emissions in both urban and non-urban areas and at noise-sensitive areas and properties…MPAs and others concerned with mineral development should have regard to the national noise strategy, on which the Department for the Environment, Food and Rural Affairs (Defra) consulted in 2001. This aims to map the main sources and areas of noise in order to identify tranquil areas that are to form a national resource, to comply with EC Directive (2002/49/EC) Assessment and Management of Environmental Noise.							
2.3	Most noise from mineral operations is created by equipment used for extraction and processing. MPAs and mineral operators should have regard to EC Directives 98/37/EC ('The Machinery Safety Directive') and 86/662/EC (Limitation of Noise Emitted by Hydraulic Excavators, Rope-operated Excavators, Dozers, Loaders and Excavator-loaders), which seek to reduce noise emissions from mobile plant and dump trucks. These do not apply to plant with a power rating in excess of 500kW or to a fixed plant. A proposed Directive (Noise Emission in the Environment for Equipment for Use Out of Doors), which is likely to come into force in 2005, indicates a further reduction in noise emissions for a range of tracked and wheeled plant. MPAs should be aware of the need to take account of this Directive when considering new applications and reviewing existing permissions after its implementation date. The Government will consider the need for appropriate supplementary guidance on this in due course.							
2.4	Planning conditions on noise should not duplicate controls placed on the developer under the relevant pollution control regime							
2.6	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action and except that MPAs will take due account of this in their decisions on individual applications.							
2.7	The key planning principle is that noise emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should, therefore include appropriate proposals for the control or mitigation of noise emissions. Those making development proposals and planning authorities considering such proposals should, therefore: consider the main haracteristics of the production process and its environs, including the location of noise-sensitive properties; make and consider proposals to minimise, mitigate or remove noise emissions at the source using best available techniques (BAT) in accordance with the European Commission's BAT Reference Documents, taking account of the control of some quarry processes under the PPC Regulations; assess the existing noise climate around the site of the proposed operations, including background noise levels at nearby noise-sensitive properties; estimate the likely future noise from the development and its impact on the neighbourhood of the proposed operations; monitor noise emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.							

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2.9	Emissions assessments should identify all sources of noise and, for each source, consider the proposed operating locations, procedures, schedules and duration of work for the life of the operation. They should consider what emissions are likely to arise and indicate how and where efforts have been made to control, mitigate or remove these at source. The level and character of the existing noise environment and the location of noise-sensitive properties will enable the necessary noise level goals to be incorporated in the design of proposed operations. Monitoring is required to compare changes in noise level and character caused by the operation to the design goals and to manage them in order to achieve those goals. There must be effective liaison with the affected community, and complaints should be dealt with promptly.							
2.10	MPAs should set out in their local development documents, policies on noise from surface mineral operations. They should outline the criteria against which they will assess the environmental acceptability of the expected noise emissions from a proposed surface mineral operation, or in reviewing the conditions on existing planning permissions. They should set out the noise limits they will apply in principle and any flexibility entailed in their application. The minerals (or successor) plan should also indicate the extent of technical information required in support of an application.	✘	✘	✘	✘	✘	✘	✘
2.11	In identifying areas of search and/or proposed sites for mineral working, MPAs should take account of any information on the existing local noise climate, particularly in areas of tranquillity that should be preserved as part of the national resource. For existing mineral operations, whether or not currently subject to conditions relating to noise, MPAs should consider whether the introduction of buffer zones to separate the mineral operation from existing and possible future noise-sensitive development could be helpful.							
2.12	When considering applications for new development or reviewing conditions on existing planning permissions, MPAs should have regard to the environmental acceptability of the likely noise emissions, including the cumulative impact at noise-sensitive properties. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development together with proposals for appropriate control or mitigation.							
2.13	Discussions on the issues relating to noise (and other environmental impacts) should take place between the mineral operator and the MPA and the local authority (LA) environmental health department before an application is submitted. Developers should also consult the Environment Agency or the LA as the regulator under the PPC Regulations.							
2.14	MPAs should ensure that operators are aware of the need for and provide all the required technical information. They should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned alongside their own expert advisers. MPAs and operators should ensure that there are appropriate consultations and effective liaison with the community likely to be affected by noise emissions.							
2.15	Where an EIA is required (DETR Circular 02/99 Environmental Impact Assessment), it should identify the actual working noise emissions from all equipment to be used on site, having regard to established good practice. It should establish the threshold at which significant effects from noise emissions will be likely in or near environmentally-sensitive locations, and demonstrate that emissions can be successfully maintained below this threshold. Sensitive locations include sites carrying national and international environmental designations. The significance of effects from noise should be considered in the context of existing development. The additional impacts of site-attributable noise emissions at noise-sensitive properties should be established.							
2.16	When considering applications, MPAs should ensure that operators have provided the required technical information and considered all reasonable options to minimise noise at source. In the light of the existing noise climate of the locality, they should consider the cumulative effects of noise emissions. MPAs should consult the EHO, as the pollution control regulator for the area, and other relevant stakeholders (e.g. English Nature for sites designated for nature conservation value) on the effects of noise emissions, and the adequacy of proposed control or mitigation measures. Where the effects of noise emissions cannot be adequately controlled or mitigated, permission should be refused.							
2.17	When considering granting permission, MPAs should establish what noise-reduction practices will be used and what their effects will be. They should identify all noise-sensitive properties that might be affected and what the effects of the proposals will be on them. MPAs should consider the need for, timing, length and frequency of temporary noisy activities that are outside normal operations but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.							
2.18	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way that noise emissions are minimised at the source and thereby controlled to acceptable levels.							

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2.19	Planning conditions should be used to apply absolute controls on noise emissions with limits normally being set at particular noise-sensitive properties (the terms used are defined in Appendix 2A). This enables the effect of noise to be related most directly to its impact on local people. In some circumstances, however, it might be more appropriate to set the limits at the site boundary or some other point. Subject to a maximum of 55dB(A)LAeq,1h (free field), MPAs should aim to establish a noise limit at the noise-sensitive property that does not exceed the background level by more than 10dB(A). It is recognised, however, that this will in many circumstances, be difficult to achieve without imposing unreasonable burdens on the mineral operator. In such cases, the limit set should be as near that level as practicable during normal working hours (0700-1900) and should not exceed 55dB(A) LAeq,1h (free field). Evening (1900-2200) limits should not exceed background level by more than 10dB(A) and night-time limits should not exceed 42dB(A) LAeq,1h (free field) at noise-sensitive dwellings.Where tonal noise contributes significantly to the total site noise, it may be appropriate to set specific limits for this element. Peak or impulsive noise, which may include some reversing bleepers, may also require separate limits that are independent of background noise — e.g. Lmax in specific octave or third-octave bands — and should not be allowed to occur regularly at night.							
2.20	Increased temporary daytime noise limits of up to 70dB(A) LAeq1h (free field) for periods of up to 8 weeks in a year at specified noise-sensitive properties should be considered to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this will bring longer-term environmental benefits to the site or its environs. Where work is likely to take longer than 8 weeks, a lower limit over a longer period should be considered. In some wholly exceptional cases, where there is no viable alternative, a higher limit for a very limited period may be appropriate in order to attain the environmental benefits. Within this framework, the 70 dB(A) LAeq1h (free field) limit referred to above should be regarded as the normal maximum. LAs should look to operators to make every effort to deliver temporary works at a lower level of noise impact. Operators should seek ways of minimising noisier activities and the noise emissions from them when designing the layout and sequencing of temporary operations, and should liaise with local residents prior to such operations taking place.							
2.21	Conditions on planning permissions should identify the noise-sensitive properties at which the noise limits are set, including the relative sensitivity to noise, which may result in different limits for different types of property, and establish a scheme of monitoring that identifies how, where and when noise is to be measured, who should be responsible and how the results will be assessed and used. Alternatively, a condition should be attached requiring a scheme of compliance noise monitoring to be submitted to and approved by the MPA.Where necessary, the MPA should seek to use Agreements under Section 106 of the Town and Country Planning Act 1990, as amended, to ensure access to noise-sensitive sites for monitoring purposes. Conditions should also be used to secure effective procedures for dealing with complaints. Planning obligations can help to ensure continued effective liaison with the local community and others affected by noise emissions.							
2.22	Monitoring, in accordance with an agreed scheme, should normally be carried out in the free field at noise-sensitive properties and should pick up all noise from static and mobile sources that could affect the property. Where monitoring has to be conducted near the façade of a building, the microphone should be located 1m from the façade at a height of 1.2–1.5m above the ground and a 3dB façade reflection correction should be applied. If monitoring has to be other than at the noise-sensitive property, the noise limit must be converted into equivalent noise limits at the monitoring points using the noise-prediction technique in Part 1 of BS5228 Noise and Vibration Control on Construction and Open Sites (1997).							
2.23	Equipment used for monitoring should correspond to that specified in BS-EN 61672-1 Electroacoustics, Sound Level Meters, Specifications (2003), capable of measurement in LAeq,1h and be calibrated before and after use.Where it is not possible by use of the pause button to exclude extraneous noise not directly attributable to the operation being monitored, an appropriate allowance should be made. Guidance on this is contained in BS4142 Method of Rating Industrial Noise Affecting Mixed Residential and Industrial Areas (1997).							
2.24	Monitoring should be undertaken during normal production working hours and should avoid meal times and periods of plant maintenance or breakdown. Measurements should ideally be taken in calm conditions or where there is a component of wind blowing from the site towards the measurement location. However, at many sites, such conditions may be rare. BS4142 suggests that measurement should be avoided in conditions of wind speeds greater than 5m/sec, rain and temperatures less than 3°C. BS4142 also requires that a record to be kept of weather conditions prevailing during all measurements. Where noise monitoring is ndertaken when weather conditions are not ideal and noise levels appear to be of concern, the impact of weather conditions on ambient noise should be considered as well as noise propagation from the site.							

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2.25	The detailed requirements for monitoring (location, period and frequency) should be decided on a site-specific basis as part of the monitoring scheme, taking account of any monitoring required under the terms of any authorisation for quarry processes under the PPC Regulations. Unnecessarily onerous requirements should be avoided. Conditions should require operators to report periodically to the MPA on the results of monitoring and to inform it as soon as possible if there is evidence of the limits being breached, including an explanation and a statement of action to remedy it. MPAs and/or EHOs should carry out periodic checks of permitted sites in their areas, particularly if complaints are received, and inform the operator and complainants of the results. If monitoring demonstrates that noise limits continue to be exceeded, MPAs should consider what enforcement action would be appropriate.							
2.26	The Government looks to the minerals industries to keep noise emissions at or below the levels set out in this Annex, and to use BAT to reduce the impact of noise from their operations. It expects MPAs to have regard to the principles of this Annex in considering the impacts of noise on the environment and the local community in the minerals and waste development plans, the development documents that will succeed these and in determining applications and reviewing conditions on existing permissions.							

MPG3: COAL MINING AND COLLIERY SPOIL DISPOSAL

Paragraph	MPG3 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
8	National Land Use Policy Considerations In applying the principles of sustainable development to coal extraction, whether opencast or deep-mine, and to colliery spoil disposal, the Government believes there should normally be a presumption against development unless the proposal would meet the following tests: i. Is the proposal environmentally acceptable, or can it be made so by planning conditions or obligations? ii. If not, does it provide local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission? iii. In National Parks and AONBs, proposals must also meet the additional tests set out in paragraphs 28 and 29 below. iv. Proposals within or likely to affect and National Nature Reserves (NNRs) must meet the additional tests set out in paragraphs 30 and 31. v. Proposals within the Green Belt must meet the additional test in paragraph 36 below. MPAs should ensure that this general approach is incorporated into their development plan policies as soon as possible. The Government recognises that the costs and benefits of an opencast proposal can best be assessed by the communities and local authorities who know the area best and are most directly affected. Accordingly the Government takes the view that, subject always to local plan procedures, normal rights of appeal and the provisions of this guidance, MPAs' assessments of the environmental acceptability or otherwise of individual proposals should normally prevail.	✘	✓	✘	✘	✘	✓	
11	Formulation of Policies and Plans Within the overall framework set out in paragraph 8 above, policies and proposals in the development plan should be consistent with national policies and strategic and regional planning guidance.							
12	Policies and proposals should take into account the principal impacts of coal working and spoil disposal, both separately and together, such as visual intrusion, water pollution, air pollution, noise, dust and traffic and the level of activity that a particular locality and its community can reasonably be expected to tolerate over a particular period, as well as the potential benefits such as job opportunities and the scope for landscape and amenity improvements through working and subsequent restoration. Equally, other development plan policies should ensure that provision for other development does not unnecessarily sterilise coal resources, nor allow development to encroach on existing mineral operations and thus increase the level of environmental impact to an unacceptable level.	✓	✘	✘	✘	✘	✓	
13	The Coal Authority and MPAs should liaise closely at an early stage of the development and mineral planning process. The Coal Authority should also be approached by MPAs in the consideration of individual planning applications…Coal operators should engage in full and open dialogue with MPAs and provide them with information on the extent of their known reserves and forward plans. MPAs should provide operators with information on the planning and environmental constraints within the authority area…For existing deep and drift mines consented under the Town and Country Planning (General Permitted Development) Order 1995 ("the GPDO") operators should also supply information on their forward mining plans in accordance with the DTI Code of Practice.							
14	Scope for Environmental Improvements Policies should give priority to proposals which will bring about environmental improvements.	✘	✓	✘	✘	✘	✓	
15	Safeguarding of existing businesses and opportunities for future investment Policies should be explicit that where there is material evidence that coal extraction and related development would have an adverse effect on efforts to attract or retain investment in an area, this is a material consideration which should be taken into account in deciding planning applications.	✘	✘	✘	✘	✘	✘	
16	Policies should make provision for proposals where extraction of coal from a site would facilitate the efficient and economic working of other mineral deposits on that site in an environmentally acceptable way…opencast sites provide one of the few viable sources of	✓	✓	✘	✘	✘	✘	

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	fireclay and every opportunity to produce it from a proposed site should be examined provided that the site can be properly restored and the overall proposal meets the tests in paragraph 8.							
17	Comprehensive working Where a forward programme of potential sites has been agreed in line with paragraph 13, policies should provide for proposals which would facilitate the comprehensive working of the coal deposits in a locality, subject to planning and environmental constraints and the acceptability of individual proposals in accordance with paragraph 8.	✘	✓	✘	✘	✘	✘	
18	Cumulative Impact Some areas have been subjected to successive opencast developments over a number of years. Policies should make clear that, where appropriate, the cumulative impact of a proposed opencast development on the community and the environment will be taken into account.	✘	✓	✘	✘	✘	✓	
19	Extension to sites Developers should provide the MPA with as much information as they have available on the extent of the resources in a proposed site, and the way in which they propose to work them, before or at the time a planning application is made to avoid subsequent unplanned applications for site extensions in area or depth… Policies should therefore make clear that any proposal to extend an opencast site, in area or depth, will have to meet the criteria in paragraph 8. Where the proposal is likely to have significant effects on the environment an Environmental Impact Assessment should be required.	✘	✘	✘	✘	✘	✓	
20	Repeat applications Section 70A of the 1990 Act (as inserted by section 17 of the 1991 Act) provides that an MPA may decline to determine a planning application if it is made within two years of the Secretary of State refusing a similar application, either on call-in or appeal, and there has been no material change in circumstances since that decision. In addition there should be a general presumption against approving applications for development of a site, or extensions to an existing site, where a similar application has been refused previously unless there has been a material change in circumstances since that decision.	✘	✘	✘	✘	✘	✘	
21	Commencement and completion of development Policies should make clear that, if planning permission is granted, conditions will be imposed specifying the date by which development must be begun (or the planning permission will lapse) and dates for the completion of coal extraction, restoration and aftercare.	✘	✘	✘	✘	✘	✘	
22	Sterilisation In principle, it is desirable to secure coal extraction prior to new permanent development above coal reserves. Policies should therefore take into account the benefit of avoiding sterilisation of coal reserves by other forms of development, within a reasonable timescale and in an environmentally acceptable way, provided the proposal can meet the tests in paragraph 8 above.	✓	✘	✓	✘	✘	✓	
23	Deep mines and drift mines In general, proposals for drift mines raise similar issues to those for deep mines. The impact is largely determined by the size, location and duration of the operations. Policies should deal with the principal impacts arising from ancillary surface development at underground mines, for example: visual intrusion, noise, dust, traffic, the location and design of buildings and storage areas, coal washing and lagoons, and site restoration; and with the potential effects of subsidence, including the potential hazard of old mine workings, the treatment and pumping of underground water, monitoring and preventive measures for potential gas emissions; and the method of disposal of colliery spoil.	✘	✘	✘	✘	✘	✓	
24	Colliery spoil ..continuity of production at existing deep and drift mines in part depends upon the availability of land for spoil disposal. Plans should therefore set out policies which make provision for this.	✘	✘	✘	✘	✘	✘	

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25	Policies should include consideration of viable alternatives to local tipping where that is precluded by environmental constraints or where there is a reasonable expectation that environmental gains will outweigh any increased costs, and should encourage use of the evaluative framework ("Procedural Manual Evaluative Framework: Assessment of Alternative Colliery Spoil Disposal Options" HMSO 1990).							
26	The coal industry should make every effort to keep spoil production to a minimum and to seek ways of reducing the environmental impact of its disposal, including flexibility in local arrangements for disposal; continued efforts to improve restoration techniques; and, by seeking opportunities for the recycling of spoil for use as secondary aggregates (see Annex A). It should supply current and projected spoil production figures to the MPA at an early stage so that a forward strategy on spoil disposal can be compiled for the whole area, and should cooperate in the discussion and preparation of forward programmes.							
27	Nationally designated and other sensitive areas Development plans should also contain policies, where relevant, for the protection of National Parks, AONBs, SSSIs, NNRs, ancient monuments, archaeological and other cultural interests, agricultural land and Green Belt. Advice on the national policies that apply is set out below.							
28	PPG7 - "The Countryside - Environmental Quality and Economic and Social Development" (February 1997) sets out in detail Government planning policies for all forms of development in National Parks and AONBs. The Government considers that major developments should not take place in these areas, and the New Forest and the Norfolk and Suffolk Broads, save in exceptional circumstances. Because of the serious impact that minerals developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all minerals development should be demonstrated to be in the public interest before being allowed to proceed.							
29	National Parks and AONBs Consideration of minerals applications in such areas should normally include an assessment of: i. the need for the development, in terms of national considerations of mineral supply; ii. the impact of permitting the development, or refusing it, on the local economy; iii. whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iv. any detrimental effect of the proposals on the environment and landscape and the extent to which that should be moderated; and iv. in the case of extensions to existing mines, the extent to which the proposal would achieve an enhancement to the local landscape.							
30	SSSIs and NNRs Mineral proposals within or likely to affect SSSIs should be the subject of the most rigorous examination. When considering such proposals planning authorities are required to consult EN on such proposals and should take account of the advice in PPG9 - "Nature Conservation".							
32	Other environmentally important areas Planning authorities may designate other environmentally significant areas in their development plans, such as special landscape areas, or areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not be as high as that to be given to the nationally designated areas referred to above.							
33	The historic environment …The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features. When determining applications for extraction, MPAs should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings.							

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34	…The protection of the historic environment, whether individual listed buildings, conservation areas or the wider historic landscape will need to be taken fully into account both in the formulation of authorities' planning policies and in development control.							
35	Agricultural land The Government's policy, as set out in PPG7, is that within the principles of sustainable development, the best and most versatile agricultural land (defined as land in Grades 🗁, 2 and 3a) is a national resource for the future, and considerable weight should be attached to the protection of such land because of its special importance when considering the allocation of land for minerals development, and deciding any application for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects……where the best and most versatile agricultural land is involved the restoration and aftercare steps should enable the retention of its longer term potential as a high quality agricultural resource.							
36	Green Belt Proposals for coal extraction and spoil disposal may also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance 2: Green Belts (PPG2). Applications to extract coal or deposit spoil in the Green Belt should be tested against the highest environmental standards. If permission is granted, stringent conditions should be attached to ensure the site is well operated and restored to the highest standards.							
37	Mineral Local Plans and Part 2 of UDPs Structure Plans and Part 1 of UDPs should set out strategic policies. Mineral Local Plans and Part 2 of UDPs should carry forward those policies and set out clear criteria against which individual proposals will be assessed. These criteria should include consideration of: - • the effects on local amenity; landscape; features of archaeological, architectural, historic or natural interest; and, agriculture; • the effect on hydrology or hydrogeology; • the environmental impacts of transportation of minerals and waste; • the cumulative impact on communities in the locality of proposals; • the effect on efforts to attract or retain investment in the area; • any environmental improvements or other material planning benefits to the community likely to result from the proposals; • the employment and other economic effects of the proposals; • the avoidance of sterilisation of mineral resources; • the efficient and economic working of other mineral deposits in an environmentally acceptable way; • the avoidance of unplanned piecemeal working of deposits; and, • where development is acceptable in principle, the range of conditions likely to be needed to mitigate or control any potential adverse effects. MPAs may also wish to have regard to the Countryside Commissions' advice on landscape and countryside issues set out in their publication "Opencast coal mining: advice on landscape and countryside issues" (CCP434, 1993) and to English Heritage/Countryside Commission/English Nature's published guidance "Conservation Issues in Strategic Plans" and "Conservation Issues in Local Plans".	✓	✓	✓	✘	✘	✓	
38	Minerals Local Plans and Part 2 of UDPs should also indicate any areas where coal extraction and the disposal of colliery spoil may be acceptable in principle subject to development control criteria being met in any particular case, as well as those areas where working or disposal is unlikely to be acceptable or where coal resources are to be safeguarded for future working…	✘	✘	✘	✘	✘	✘	
39	Handling Specific Development Proposals Proposals for coal extraction and spoil disposal can give rise to considerable concern because of the potential environmental impact operations can have on a locality. Operators and MPAs should therefore have regard to the code of practice prepared jointly by the							

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	then County Planning Officers' Society and COALPRO ("Planning for Quality - A Code of Practice", September 1996).							
40	Before applications are submitted to the MPA for determination, and as early as possible, operators should explain fully the nature of their proposals, indicating the ways in which they intend to deal with the environmental factors that will arise…Technical issues such as drainage, access arrangements, working methods, pollution control, restoration, after-use and stability should also have been discussed with the appropriate bodies.							
41	There is a statutory duty to consult with and obtain approval from the Environment Agency with regard to the siting and condition of any spoil disposal to land.							
42	In all cases the MPA will need information about likely environmental effects as part of the material accompanying an application for planning permission. Operators should seek the MPA's views on the preparation of Environmental Statements (ES) appropriate to the scale of the proposal and the sensitivity of its location.							
43	Environmental Impact Assessment … Where proposals for mineral development are likely to have significant effects on the environment, applications will need to be subject to EIA under the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999 and an Environmental Statement (ES) prepared.							
44	…In any event, mineral applications in National Parks and AONBs should be subject to the most rigorous examination and EIA should always be required. Similar considerations apply to proposals which would affect SSSIs or other areas which have been designated nationally or internationally as requiring special consideration.							
45	Environmental duty In addition to any requirement for EIA, section 53 of the Coal Industry Act 1994 imposes an environmental duty on the coal industry. In formulating coal mining proposals requiring planning permission, operators are required to have regard to the desirability of the preservation of natural beauty, the conservation of flora and fauna and geological or physiographical features of special interest and the protection of sites, buildings, structures and objects of architectural, historic or archaeological interest; and, must formulate proposals for the adoption of measures to mitigate any adverse effect of the development on such matters. In considering coal mining proposals, MPAs must have regard to the extent to which the operator has complied with the duty.							
47	Post application consultations Following receipt of a planning application for coal extraction or spoil disposal, the MPA should undertake the consultations specified in the Town and Country Planning (General Development Procedure) Order 1995 ("the GDPO"). In addition, they should also consult MAFF where there is likely to be an agricultural afteruse. The Forestry Commission should be consulted where areas of forest are likely to be affected by the development or where forestry planting forms part of a reclamation scheme. The Countryside Commission should be invited to comment on any application which has a major impact on the landscape, Regional Parks, Country Parks, National Trails and Community Forests. MPAs should consider the likely effect on a National Nature Reserve, SSSI, or other area of ecological, geological or geomorphological importance, of any planning application at or in the vicinity of such a site, so as to decide whether or not to consult English Nature (EN). MPAs should bear in mind the possibility that certain developments may affect a site some distance away. Sites and Monuments Records (SMRs) should be consulted where proposals affect features of archaeological interest or the built heritage. SMRs will involve English Heritage as appropriate. English Heritage needs to be consulted directly on proposals which would affect Scheduled Monuments and grade I and II listed buildings.							
49	Consideration of applications MPAs will need to consider in detail the full range of social, community, economic and environmental issues that are relevant to the planning decision. For its part, the industry should demonstrate that it has addressed all potential adverse effects either by amending the proposals, or providing appropriate compensatory or mitigation measures when preparing planning applications. The industry should demonstrate that its proposals take all practicable steps to satisfy the environmental concerns on site operation and restoration. The objective must be to ensure that any adverse effects on local communities, environmental damage or loss of amenity caused by mineral working are kept to an acceptable level, and do not outweigh the benefits to the local community of proceeding with the development. Where material planning objections to a proposal outweigh any benefits to the local community then, as stated							

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	in paragraph 8(ii) above, planning permission should not normally be granted.							
50	Need and alternative sites or sources of supply Where the major argument advanced in support of an application to extract coal is that the need for the development outweighs the planning disadvantages inherent in it, the MPA should have regard to the possibility of meeting that need from alternative sites or sources of supply.							
51	Applicants should include a description of the main alternatives considered in their Environmental Statement.							
53	Consideration of impacts and conditions …In the meantime, the industry and MPAs should adopt the precautionary principle and ensure that proposals and developments do not result in unacceptable levels of airborne dust. Where planning permission is granted stringent conditions should be attached to control and monitor dust emissions. Further advice will be issued once the results of the research are known.							
54	… Meanwhile, and in any event, where planning permission for coal extraction or the disposal of colliery spoil is granted, the Secretary of State expects MPAs to impose planning conditions requiring the highest standards of operation, restoration and aftercare to ensure that any impacts on the environment or local amenity are minimised, and to ensure that compliance with those conditions is monitored and enforced. In that connection the industry can play its part by initiating annual independent environmental audits of operating sites and making the results freely available to the MPA, members of the public and other interested persons, either independently or as part of an individual company's accreditation under an environmental performance or monitoring system such as EMAS or ISO 14001…							
55	Planning Obligations … Where the environmental impacts of coal extraction or colliery spoil cannot be sufficiently mitigated, or controlled, by means of planning conditions alone, it may be appropriate for MPAs to seek planning obligations to ameliorate the harm or to secure relevant and legitimate local benefits which outweigh that harm, in line with paragraph 8 above. Community benefits, for instance, in the form of new community facilities or community trust funds may be proposed by the developer or suggested by the planning authority. However, any such benefits offered or sought should not be treated as material considerations unless they meet the tests set out in DOE Circular 1/97 - ie: i. they are necessary to make a proposal acceptable in land use planning terms; ii. they are relevant to planning; iii. they are directly related to the proposed development; iv. they are fairly and reasonably related in scale and kind to the proposed development; v. they are reasonable in all other respects.							
56	Restoration and aftercare Applications for extraction of coal or disposal of colliery spoil should include information which demonstrates that the site can be restored satisfactorily. The omission of such information is likely to delay determination of the application. If proposals for restoration are inadequate, unsatisfactory or impracticable, planning permission should not be granted. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.							
57	Proposals for restoration and aftercare of coal extraction and spoil disposal sites should form an important part of the information submitted with a planning application and in earlier informal discussions. This information should be sufficiently detailed for a realistic view to be taken of the after-use intended, including phasing of progressive restoration and the final landform and landscape intended. This should normally be agreed with the MPA in advance of planning permission being granted, after discussions with the district council, site operator, land owners, farming, local community and other relevant local interest groups (eg nature conservation).							

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58	Aftercare proposals should also take account of the need to manage on-site and off-site drainage, and any creation of water features, including any advice from the Environment Agency who should be consulted, particularly when preparing any restoration and aftercare scheme where it is intended to impound or create an impoundment of water or create or divert a river or stream.							
59	At the time planning permission is granted, both the principles and, as far as possible, the details of restoration should be agreed - although in some cases it may be sensible for some details to be agreed at a later stage. The intended after-use must also be decided when planning permission is granted, but in the case of longer term sites the detailed aftercare programme may more appropriately be settled in a scheme agreed subsequently. Further advice is given in MPG7.							
60	In the cases where agriculture is the intended after-use, it is essential that site working, restoration and after-use should be considered thoroughly at the outset, and in full consultation with MAFF, environmental and other interests as appropriate. In cases where forestry is the intended after-use, consultations on its appropriateness and on aftercare requirements should be with the Forestry Commission.							
64	However, where the operator can demonstrate to the satisfaction of the MPA that they are covered by an established and properly funded industry guarantee scheme, which would adequately finance a programme of restoration and aftercare in the case of default by the operator, the Government considers that a bond should not be necessary.							
65	… In all cases, operators should ensure that sufficient finance is available to enable them to meet fully restoration and aftercare conditions. Equally, MPAs should have regard at all times to the need to avoid imposing costs on coal operators that are larger or longer than strictly required to meet best standards. In those cases where security funding or bonds are required, the sums should be released progressively as restoration proceeds.							
66	<u>Liaison Committees</u> Should permission be granted, particularly for major developments, developers should aim to set up a liaison committee or advisory panel consisting of representatives of the developer, the contractor working the site, local authorities and members of the local community and other interested bodies (including EN where appropriate) to ensure that the local community has a full understanding of working practices and that the developer and contractor are fully aware of local community concerns.							
68	Nevertheless, the Government expects MPAs to determine applications expeditiously….Applicants should aim to provide authorities with all the information that is needed to determine the application, including in all normal cases an appropriate Environmental Statement covering all relevant issues. If the authority needs further information, every effort should be made to ensure that requests for its provision are comprehensive at the outset.							
Annex B	<u>Planning and Pollution Control</u> B3. Planning conditions should not seek to control through planning measures matters that are the proper concern of the pollution control authority, except where planning interests can be clearly distinguished. However, the winning and working of minerals is an operation which continues over a number of years and the "development" is not complete until the site has been worked out and restored. The MPA will therefore be concerned with the totality of the impact of the development on amenity and other land uses, whether or not part of the development is subject to pollution control. B4. Where processes prescribed for control under Part I of the Environmental Protection Act 1990 form part of the application for planning permission for coal extraction or colliery spoil disposal, material planning considerations may include the potential loss of amenity caused by pollution, and the MPA will need to take them into account in determining whether planning permission should be granted. MPAs should, where appropriate, impose planning conditions on any permission minimising such impacts. Such conditions must relate to land use planning considerations and may include conditions regulating such matters as noise, dust, hours of working etc where these are necessary to protect local amenity or other land uses. However, planning conditions should not duplicate pollution controls on prescribed processes. It is essential therefore that MPAs should consult the relevant pollution control authority at an early stage about the extent to which matters should be addressed through planning or pollution control mechanisms, and to provide the pollution control authority with an opportunity to comment on pollution control in respect of the development as a whole.							

MPG5: STABILITY IN SURFACE MINERAL WORKINGS AND TIPS

Paragraph	MPG5 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
	This guidance advises that: - mineral planning authorities need to consider stability in relation to surface mineral workings and tips; - local planning authorities need to consider stability in relation to development in, on or near abandoned surface mineral workings and tips; and that - policies should outline the consideration which will be given to stability issues in considering mineral development and other development in, on or near to mineral workings and tips; - consideration of apparently unrelated issues may require consideration of the potential effects on the stability of excavated or tipped slopes; - where appropriate, planning applications and restoration/landscaping schemes should be accompanied by a design report prepared by a competent person which demonstrates that the perimeter slopes and any internal slopes remaining after restoration will remain stable.							
16	Development Plans When preparing minerals local plans, MPAs will need to consider the extent to which specific policies should be included to cover tip- and quarry-slope stability or whether this issue should be covered by supplementary guidance. This consideration should take account of the factors which might trigger particular concerns about stability, such as proximity to built development or infrastructure; knowledge of previous instability problems; the criteria to be used to define stand-off distances or clearances between quarry slopes or tips and the site boundary or third-party structures; and the requirement for final slopes and restoration to be compatible with stable slopes…	✘	✓	✘	✘	✘	✘	✘
17	In addition, policies in district-wide local plans should seek to ensure that land use is appropriate when considering development above or below abandoned quarry slopes and on or near to disused tips or back-filled workings. In particular, attention should be given to the possible need for stand-offs to protect neighbouring land or structures and/or for slope stabilisation measures. Where development is being proposed on back-filled workings, consideration will be needed of both the planning and Building Regulations requirements in respect of stability, as well as of the possibility of contamination arising imported waste…Any development planning briefs prepared for such sites should ensure that the issues of slope stability, differential settlement of quarry backfill and the likelihood of contamination and migration of contamination from the site are properly addressed.							
20	Applications for Mineral Workings and Review of Old Mineral Permissions Landscaping and restoration proposals should be consistent with the production and maintenance of safe and stable slopes.							
22	While the internal working slopes of quarries and tips are principally matters of concern to the operator and the HSE rather than for the MPA, the final perimeter slopes and restoration proposals have land-use implications, which need to be considered by the MPA. In order to do so it will need to be provided by the operator with an assessment and design of perimeter slopes and any internal slopes remaining after restoration to enable any potential for adverse effects due to instability to be minimised.							
24	Applications for new workings should be accompanied by an appraisal of slope stability issues based on existing information, which aims to: • identify any potential hazard to people and property and assess its significance; • establish the basis for reserve calculation; • identify any features which could adversely affect the stability of the working to enable basic quarry design to be undertaken.							
25	Where built development is the proposed after-use for back-filled workings, MPAs should impose conditions to secure appropriate deposition and compaction to allow that development to proceed without the need for further ground treatment.							

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26	Applications for Development on or Near Abandoned Tips or Quarries Appraisals and assessments of excavated and tip slope stability should be carried out for the operator by a competent person, as defined in the Quarries Regulations 1999. The MPA is entitled to rely on such appraisals and assessments in considering the impact of stability on land use. The MPA should ensure that any changes to the applicants proposed method of working, which may be desirable for other reasons, are appraised and assessed by that competent person.							
27	Conclusions Where development is proposed in or near the slopes of abandoned quarries or tips, local planning authorities should seek information from applicants in respect of stability reports prepared by a competent person. The layout of such development will need to be considered in relation to the stability of nearby slopes and the necessity for and feasibility of any necessary stabilisation measures. Development on back-filled workings and tips will also need to consider the potential effects of differential consolidation of the fill/tip material as well as any potential effects on slope stability. The detailed resolution in terms of specific foundation measures or ground treatment is, however, a matter for the building regulations.							

MPG7: THE RECLAMATION OF MINERAL WORKINGS

Paragraph	MPG7 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
8	Reclamation Policies in Development Plans Structure plans and Part 1 of UDPs should express in general terms the MPAs strategy for mineral working and related development taking into account national and regional policies. They should provide policy guidance to applicants including in general terms the need for restoration and aftercare of mineral workings.	✓	✓	✘	✘	✓	✓	✓
9	Minerals local plans (or minerals and waste local plans), district-wide local plans of the new unitary authorities (where authorised to include minerals and waste policies), and Part II of the UDP's provide an opportunity for local authorities to develop in detail the policies and plans for their area. They should provide policy guidance to applicants on appropriate uses of land within the plan areas. This should assist in the early identification of the most appropriate after-use for a mineral site.	✘	✓	✘	✘	✘	✓	✘
10	When drawing up their plans, local authorities should have regard to Government policies on land use.							
13	National Land Use Policies and Reclamation of Mineral Sites Agriculture: Where minerals underlie the best and most versatile agricultural land it is particularly important that restoration and aftercare preserve the long-term potential of the land as a national, high quality, agricultural resource.	✘	✓	✘	✘	✘	✓	✘
14	Government policy seeks also to encourage the diversification of the rural economy where this will not result in the significant loss of high quality agricultural land. Therefore whilst agriculture remains the most appropriate after-use for many mineral sites, other uses such as forestry and some forms of amenity including nature conservation (e.g. heathland or unimproved grassland), should also be considered on land which was originally in agricultural use. Where these alternatives are proposed on the best and most versatile agricultural land, the methods used in restoration and aftercare should enable the land to retain its longer-term capability to be farmed to its land classification potential, thus remaining a high quality agricultural resource for the future…	✘	✘	✘	✘	✘	✓	✘
15	Reclamation to non-agricultural uses does not mean that there can be any lessened commitment to high standards in the reclamation and recycling of land taken for mineral working, and they therefore should not be chosen because they are perceived as `easier options'. They require equal commitment by mineral operators, mineral planning authorities and any other parties involved to achieve high standards of implementation.							
18	Forestry Therefore, in the areas of the "Community Forests", the National Forest, and in preferred areas as identified in IFSs, structure plans and minerals local plans should give consideration to inclusion of policies for the after-use of mineral sites to forestry and amenity woodland.	✘	✓	✘	✘	✘	✓	✘
20	Landfilling of Surface Mineral Workings Unitary planning authorities should include waste policies in their unitary development plans.							
21	Waste local plans therefore need to take account of minerals local plans.							
22	Imposing Reclamation Conditions for New Permissions General Considerations In granting planning permission for mineral working, MPAs should always carefully consider the applicant's proposals for reclamation of the site, how and whether the proposals are likely to achieve the intended results and, therefore, how requirements to ensure satisfactory reclamation can be incorporated into appropriate planning conditions. It is equally important that the applicant should thoroughly understand, and make financial provision for, the responsibilities he will be taking on under the reclamation conditions likely to be imposed on a planning permission.							

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24	Planning conditions for reclamation should normally be framed with the intended after-use in mind. However, separate planning permission is likely to be required for any after-use except: i. agriculture and forestry (excluded from the definition of development in section 55 of the 1990 Act), ii. uses which are included in the Town and Country Planning (General Permitted Development) Order 1995, and iii. nature conservation and informal recreation which do not involve substantial public use. Any application for development on a current or disused mineral working site which would conflict with or prejudice compliance with a restoration and aftercare condition imposed in respect of the mineral working will be dealt with by the MPA.							
25	Pre-Application Considerations The drawing up of practical proposals for site reclamation will require a careful site investigation by the potential mineral operator prior to the submission of an application. The outcome of the investigation should be reflected in the documentation submitted with the application.							
26	It is in the applicants interest to discuss working and reclamation proposals and possible planning conditions with the MPA, prior to formal submission of an application. These discussions should also involve the statutory consultees, the landowner, tenant and any other person with a relevant interest.							
27	To demonstrate that a site can be reclaimed to an acceptable standard and after-use, the applicant is advised to prepare, at the outset, a working plan which includes restoration proposals and is based upon findings from the site investigation. This should be in sufficient detail for the MPA and any statutory consultees to form a judgement as to its feasibility.							
28	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, they will need to be subject to an assessment of those effects under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988.							
29	Whether or not a formal environmental assessment is required, operators are advised to follow the general methodologies for the assessment of environmental effects in all applications. These provide the applicant with the opportunity to demonstrate, and the MPA to evaluate, for example, the practicality of the proposed after-use(s). Where there is doubt as to the practicality of proposals, the operator should discuss alternative solutions using the available information.							
30	Submission and Determination of Planning Applications Having received an application for planning permission, it is necessary for the MPA to notify or consult other interested parties before reaching a decision…MPAs are not required to consult external experts for advice on amenity use; but they may do so in appropriate cases.							
31	Policies and guidance in Minerals Local Plans, Part II of UDPs and other local plans should assist in these considerations.							
32	MPAs should thus have regard to the practicality of the proposal before them. The possibility that reclamation techniques may have improved in the intervening time must also be borne in mind.							
33	Drawing up Reclamation Conditions Where a permission is granted, therefore, the conditions should be drafted in such a way that, even if the interest of the mineral operator applying for permission is subsequently disposed of, the requirements for reclamation can still be fulfilled, whether by a new operator or in the case of default, by the land-owner. The general principle is that a MPA should take into account whether it is feasible to implement the applicant's reclamation proposals successfully.							
34	Planning conditions for reclamation should be specific to the proposed site and should normally be framed with the intended after-use in mind.							

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35	Where possible, it is normally desirable to have 'progressive' or 'rolling' reclamation to minimise the area of land occupied at any one time by the mineral working, unless to do so would be likely to affect adversely the standard of reclamation achieved, or would be impractical having regard to the type of operation and nature of the site. Conditions for progressive reclamation normally limit the area taken for mineral working at any one time and relate it to the rate of restoration of earlier phases of the operation. It is, however, important that conditions permit a sufficient area of land to be stripped of soils in advance of mineral extraction to allow for wet years when soil stripping operations may be impracticable. It is not advisable to specify actual dates in conditions for phasing unless there are overriding reasons to do so.	✘	✓	✘	✘	✘	✓	✘
36	For short-term workings it is usually appropriate to impose a detailed set of conditions at the time of granting planning permission. For longer-term workings, early agreement on the details of at least the later stages of reclamation may not be appropriate.							
37	For longer-term workings, it is also appropriate to agree at the outset outlines of requirements covering the main stages (e.g. filling, restoration and aftercare), together with detailed schemes for stripping and storage of soil materials. This must be sufficient to clearly demonstrate that the overall objectives of the scheme are practically achievable. Such workings should then normally require the submission of a detailed scheme or schemes for restoration and aftercare, for agreement, by some specific stage towards the end of the life of the permission. Sites where progressive reclamation is to be carried out can require submission of schemes for agreement from time to time as appropriate.							
38	Soil Handling and Storage For after-uses requiring the growth of vegetation, effective reclamation will depend on the appropriate identification and management of soil resources prior to and during work as well as in the later stages of restoration and aftercare. Soil resources in this context are taken to include any medium which is not contaminated and which has a realisable potential to permit plant root growth and to retain and provide water and nutrients. Planning conditions will normally prevent soil resources from being exported from the site. In addition they will usually require the separate stripping, storage (where necessary) and respreading in correct sequence of defined thicknesses of topsoil, subsoil, or any other soil-making materials. Some sites may contain considerable variations of soils within them, such as major textural differences, and it may be desirable to require separate stripping (and storage and restoration) of these materials. Such soil variations should have been identified in pre-application site surveys and provided for in the reclamation plan.	✘	✓	✘	✘	✘	✓	✘
40	Landform and Landscape In preparing a planning application for either a new site or any significant extension to an existing working, the applicant/operator should develop a site-specific landscape strategy, which includes: i. defining the key landscape opportunities and constraints; ii. considering potential directions of working, significant waste material locations, degrees of visual exposure etc; iii. identifying the need for additional screening during operations; iv. identifying proposed after-uses and preferred character for the restored landscape.							
42	Landscape and reclamation plans should address the impacts which mineral extraction can have on the existing landscape. These will include the working face and operations at the face, locations of waste tips, and haul roads.							
43	The intended final landform, gradients and drainage of a site should be designed and specified at the outset, with controls in planning conditions as appropriate. For many sites there may need to be some flexibility, and a continuation of the iterative design process, to take account of changes necessitated by operational, geological and mineral working safety demands. However, major planned final landform elements are not easily adjusted when extraction is almost complete, and modifications should not compromise the overall environmental acceptability of the scheme.							
44	Wherever possible and safe to do so the natural gradients and rock features of the surrounding landscape should be imitated when forming new screening banks, soil storage bunds and final faces.							
50	Backfilling or Infilling with Mine and Quarry Wastes Filling of a mineral void with these materials will be controlled by planning conditions. The conditions will need to address both the manner and sequence of filling the excavation and specify, usually by appropriate reference to plans and cross sections, the intended							

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	gradients, landform and contours of the final surface. Allowance should be made for predicted final settlement. Mine and quarry wastes are not controlled wastes as defined under the Environmental Protection Act 1990 (the EPA 1990).							
51	Infilling with Controlled Wastes However, the choice to integrate the two activities should be a deliberate and conscious one, which takes account of the joint impact of the extraction and landfill on the site and surrounding area.							
55	Restoration Restoration conditions also need to cover remedial treatment of soil so as to facilitate the use of cultivation, harvesting and drainage equipment for the aftercare period and the longer-term management of the land.							
59	Aftercare Consultations and Responsibilities Before imposing an aftercare condition, the MPAs are required to consult the appropriate Agriculture Minister (through the regional Land Use Planning Units of MAFF) where they propose that the land should be used for agriculture, and to consult the Forestry Commission where they propose that it should be used for forestry.							
61	Provided the necessary information has been submitted by the operator (see Boxes 5 and 6 in Annex A) then the consultations required for successful aftercare to take place should not be allowed to lead to undue delay in the grant of planning permission or the completion of an agreement on the aftercare condition or scheme.							
62	Form of Aftercare Conditions An aftercare scheme will usually be appropriate with a long-term permission where restoration and aftercare may not be begun for a number of years. It should provide a flexible framework for a successful programme of aftercare. There may, however, be cases where it would be appropriate to specify aftercare steps in the aftercare condition itself - e.g. where mineral working will be short-term and the aftercare relatively straightforward, or for the first phase where progressive restoration and aftercare are to be carried out relatively quickly.							
70	Financial Responsibility for Aftercare It is important that the likely aftercare requirements are made clear at the outset so that operators are aware of the cost implications involved, and can make provisions for them.							
74	Aftercare and Agricultural Set-Aside Before seeking to set land aside farmers and landowners are therefore advised to ensure that they are capable of meeting both aftercare planning requirements and AAPS management rules. Where this cannot be achieved land should not be set aside.							
75	Planning Obligations However, planning obligations which are sought should fairly and reasonably relate in scale and kind to the proposed development.							
82	New or Improved Reclamation Conditions for Existing Permissions and Workings, Including Interim Development Orders and Old Mineral Permissions The new schemes should include provisions for landform, restoration and aftercare of sites to a suitable after-use. Where a site is already subject to satisfactory conditions providing for restoration and aftercare there should be no need to alter them. In all other cases, appropriate restoration and, where relevant, aftercare conditions should be imposed and provision should be made for reclamation to an appropriate after-use as soon as practicable.							
86	Financial Provision for Reclamation It is Government policy that properly worded and relevant planning conditions which are complied with and, where necessary, enforced, should be able to secure the restoration, aftercare and after-use of mineral sites. No payment of money or other consideration can be required when granting a planning permission except where there is specific statutory authority…Financial guarantees to ensure the reclamation of mineral sites should therefore not normally be required, and policies in development plans							

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	should not state that a local authority will require or seek bonds other financial guarantees to underpin planning conditions.							
91	Responsibility for the restoration and aftercare of mineral sites lies with the operator and, in the case of default, with the landowner. Applicants should, therefore, demonstrate with their applications what the likely financial and material budgets for restoration, aftercare and after-use will be, and how they propose to make provision for such work during the operational life of the site. This is important to avoid future dereliction and the possibility that the costs of reclamation of mineral sites might have to be borne by other public or private sources.							
93	Any demonstration by an operator of how they intend to make financial provision for restoration, aftercare and after-use should relate to the development proposed. MPAs should not seek a demonstration or provision of unlimited cover for unspecified future liabilities or for matters where normal planning mechanisms would apply. In particular MPAs should not seek financial guarantees from applicants, prior to the grant of planning permission, to deal with possible future breaches of planning controls that can be dealt with through existing planning enforcement powers and procedures.							
94	There may remain exceptional cases where it will be reasonable for an MPA to seek a financial guarantee to cover restoration (including aftercare) costs, through a voluntary agreement/planning obligation at the time a planning permission is given. Examples of such situations may be: i. for very long-term new projects where progressive reclamation is not practicable, such as a super-quarry or some types of industrial or metalliferous mineral sites, where incremental payments into a secure fund may be made as the site develops; ii. where a novel approach or technique is to be used, but the MPA considers it is justifiable to give permission for the development; iii. where there is reliable evidence of the likelihood of either financial or technical failure, but these concerns are not such as to justify refusal of permission. However, it is the Government's view that where an operator is contributing to an established mutual funding scheme, such as the SAGA Restoration Guarantee Fund, it should not be necessary for an MPA to seek a guarantee against possible financial failure, even in such exceptional circumstances.							
95	There are some other circumstances where a financial guarantee might be appropriate as part of a planning obligation, including where the mineral developer contributes funding towards management of the new after-use of the land which needs to last beyond the formal aftercare period.							
96	It is important that where MPAs may seek specific financial guarantees for site reclamation, this does not unfairly discriminate against smaller operators. Therefore, all planning controls must be applied on an even-handed basis, regardless of the size of the operator.							
97	Monitoring and Enforcement of Restoration, Aftercare and Related Site Operations The objective should be for all relevant parties to have in place adequate systems, including quality controls and staff with appropriate training and skills, to achieve their parts in securing successful site reclamation in the most cost-effective manner.							
98	Mineral operators should ensure that good records of all relevant planning documents, and of operations carried out, are kept at each site; and similar information should be held by the MPA.							
99	It is recommended that mineral operators provide MPAs with an annual report on each of their sites, which indicates how they have monitored and complied with specific planning conditions. For new sites such a requirement could be included as a planning condition, providing that the actual conditions to be monitored and reported on are sufficiently precise and identified. However, monitoring reports should not be seen as an alternative to proper and objective monitoring of compliance by the MPA.							
100	MPAs should also have a planned series of visits to sites to check on key activities at the right times, such as in advance of soil stripping and stages of restoration, in addition to routine monitoring and recording of progress.							

MPG10: PROVISION OF RAW MATERIALS FOR THE CEMENT INDUSTRY

Paragraph	MPG10 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
4	Introduction The Government places great importance on reducing the level of imports of building and construction material, and wishes to encourage domestic production to counter the rising import trend and to provide employment. The Government would also not wish to discourage any export opportunities that might arise. The Government therefore looks to mineral planning authorities to make provision for adequate supplies of raw material for the industry as it endeavours to meet future domestic demand.					✘		
	It is important that short term gains should not be achieved by creating environmental debts for future generations. The encouragement of cement production must therefore be balanced against important environmental and conservation interests. The industry are asked to draw up schemes for new quarrying in consultation with the minerals planning authorities which reflect these environmental considerations. Key features of these schemes will be proposals for the working arrangements and the restoration and after-use of both existing operations and new sites.							
26	Development Plans Development plans provide an opportunity for considering the various options for the future location of mineral workings, identifying preferred locations and the safeguarding of mineral resources for future working. Structure plans should identify areas for mineral development in broad terms. Mineral local plans should identify are as in more detail using Ordnance Survey-based maps.					✘		
27	Development plans should also set out the environmental criteria against which planning applications will be assessed, and policies for the working, reclamation and after-use of mineral working sites. They should also carry forward national policies for landscape and historic or nature conservation and for agriculture which may constrain the choice of sites for mineral working.					✓		
28	In cement-producing areas, development plans should try to assess the likely raw material needs of the industry and having examined the various options which are available identify preferred areas of working which will meet these needs. The forecast of possible future demand for minerals used in the production of cement at annex B should inform the assessment of likely needs. Mineral planning authorities should discuss the choice of sites with the cement industry when formulating these plans. The choice of sites must take into account national policies on landscape and historic or nature conservation and on agricultural land. The plans should also safeguard mineral resources for future working. The plans should set out the development control criteria which new planning applications for mineral extraction must satisfy. They should also set out policies and proposals for the working, landscaping, reclamation and after-use of mineral sites.					✓		
31	Supply Policies for the release of land for mineral working and cement production should therefore balance the need for the development, environmental, social, agricultural and other relevant considerations.					✓		
34	Location of Plant and Production Capacity It follows from this that, in order to maintain and in some cases increase production at existing plants, it will be necessary for the cement makers and the mineral planning authorities to identify areas of working and to safeguard resources reasonably near existing plants, after taking account of all environmental criteria. Proposals will also need to be drawn up for the working, landscaping, restoration and after-use of quarries and plant sites.					✘		
36	Wharves For their part, planning authorities should make every effort to identify and safeguard suitable locations for wharves in their development plans.					✓		
38	Safeguarding As mineral resources are finite, local planning authorities should make every effort to safeguard in their development plans, and through development control, those deposits which are of economic importance against other types of development which would be a serious hindrance to their extraction. It will usually be necessary to consider need over a much longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be					✓		

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	necessary to consider the time scales of the proposed mineral working in order to keep blight to a minimum. Where it is possible to extract minerals prior to other more permanent forms of development this should be encouraged unless there are good planning reasons for not doing so.							
39	National Parks The Government's policy on the treatment of applications for mineral extraction in the National Parks is set out in MPG1. Applications must be considered on their merits, but because of the serious impact which mineral working may have on the natural beauty of the Parks, minerals applications in these areas "must be subject to the most rigorous examination". Extraction should be demonstrated to be in the public interest, and consideration of such applications should therefore normally include an assessment of: i. the need for the development, including the extraction of the mineral in terms of national considerations and the impact of permitting or refusing it upon the local economy; ii. the availability and cost of alternative sources of supply; iii. any detrimental effect on the environment and the landscape and the extent to which that could and should be moderated; iv. whether in the light of this assessment the proposed development would be justified in the public interest. (Hansard, House of Commons 9 April 1987 columns-393-394).							
40	Areas of Outstanding Natural Beauty AONBs are designated under the National Parks and Access to the Countryside Act 1949 for the purpose of preserving and enhancing their natural beauty and, as is the case with National Parks, they may also contain valuable chalk and limestone deposits. The Government's policy on AONBs (Hansard, House of Commons 29 July 1982 Cols 707-10) also requires that minerals applications in these areas "should be subject to the most rigorous examination".					✘		
41	National Nature Reserves and Sites of Special Scientific Interest DOE Circular 27/87 (WO 52/87) emphasises that in determining planning applications and drawing up development plan policies planning authorities should take full account of nature conservation factors particularly in areas designated as National Nature Reserves or Sites of Special Scientific Interest for their flora, fauna or geological or physiographic features. It specifies that mineral applications in these areas should be subject to the most rigorous examination. English Nature should be consulted on such applications in England and in Wales consultation should take place with the Countryside Council for Wales. It is recognised that there may sometimes have been cases where mineral workings have been beneficial in the establishment of new wildlife habitats and in the exposure of important geological features.					✘		
42	Other Environmentally Important Areas Planning authorities may designate in their development plans other environmentally significant areas, such as special landscape areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not normally be as high as that given to the statutorily designated areas referred to above.					✘		
43	Ancient Monuments and Archaeological and Other Cultural Interests Mineral working may damage or destroy irreplaceable sites, structures and remains of historic archaeological interest that are of importance to the national heritage. The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features, and mineral planning authorities should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings when determining applications for extraction. Planning Policy Guidance Note 16: Archaeology and Planning (PPG16), and the CBI Code of Practice for Minerals Operators, underline the importance of identifying as early as possible the likely presence and importance of any archaeological sites liable to be affected by the proposed development. In England this should involve early consultation with the County Archaeological Officer or equivalent (listed in PPG16) and in Wales with the regional archaeological trust. Where remains are scheduled (under the provisions of the Ancient Monuments and Archaeological Areas Act 1979), the Secretary of State for the Environment's consent is needed before works may proceed. Where buildings are listed, listed building consent is required before they may be altered or					✘		

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	demolished.							
44	Agricultural Land Applications for minerals extraction from land used for agriculture are subject to policies set out in DOE Circular 16/87 (WO 25/87). The Government's overall policy is that when considering the allocation of land for development and in deciding applications for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects. The Circular also recognises that minerals have to be worked where they occur and that mineral workings provide valuable raw materials for industry and can contribute to the rural economy. These factors, and the feasibility of a high standard of restoration, therefore need to be considered in deciding planning applications for mineral working affecting agricultural land. Where minerals underlie good quality agricultural land, the Circular advises that the best and most versatile land is a national resource for the longer term and should in general be protected from irreversible development.					✘		
45	Green Belt Proposals for mineral working also arise within Green Belts. The government's policy is set out in Planning Policy Guidance Note 2: Green Belts (PPG2). This states that the extraction of minerals need not be incompatible with Green Belt objectives provided that high environmental standards for working and landscaping are maintained and that the site is well restored to an appropriate use.					✘		
47	Local Environmental Effects MPAs should have regard to all material considerations when determining applications, including these guidelines and relevant policies in development plans. They will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the cement industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them. The industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns of neighbouring sites with regard to site operation and restoration. The objective must be to ensure that any environmental damage or loss of amenity caused by mineral working is kept to an acceptable level.					✓		
48	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, the projects concerned will need to be subject to environmental assessment (EA) under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988… … It is therefore the industry's intention to continue its practice of submitting statements, covering all relevant issues, in support of planning applications. The Government welcomes this.							
53	Transport The policy implications for the planning system are that cement plants generate significant amounts of road traffic and that the scope for transferring this to the railways is currently limited. MPAs should pay particular consideration to traffic routing when determining new planning applications. The industry should keep under review the options for using rail transport and use it in preference to road transport wherever it is cost effective to do so taking account of the possibility of obtaining grants under Section 8 of the Railways Act 1974 for the construction of rail facilities.					✘		
54	Water Interests There is a substantial body of legislation in relation to water supply, pollution and land drainage. Mineral planning authorities and the industry should take into account the need to protect the flow and quality of water supplies in accordance with British and European Community legislation and the need to ensure that changes in the water table as a result of minerals extraction do not cause environmental damage. The National Rivers Authority should be consulted about all new mineral development proposals.					✘		
55	Air Pollution Cement production can generate significant air pollution. Under the Environmental Protection Act 1990 the manufacturer of cement or clinker must be authorised by HMIP for integrated pollution control. The operator must demonstrate the use of the best practical environmental option (BPEO). The bulk handling of cement other than at the point of production requires authorization from the local					✘		

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	authority. The Secretary of State is issuing guidance notes to be used by both HMIP and Local Authorities to assist in achieving the objectives set down in the Environmental Protection Act 1990.							
57	Landbanks Mineral planning authorities should therefore maintain landbanks of permitted reserves of raw materials for cement plants, providing that the industry come forward with sufficient environmentally acceptable proposals. These landbanks should include the industry's primary materials (chalk and limestone) and also secondary materials (clay and shale). There should be a landbank calculated for each site.					✓		
58	The size of the cement industry's landbank should be directly linked to the scale of capital investment envisaged at a site, for an important feature of the industry is the high cost of investment and the long amortisation periods this entails. Mineral planning authorities should normally aim to maintain cement plant with a stock of permitted reserves of at least 15 years. Where significant new investment (such as a new kiln) is agreed with the mineral planning authority, the plant should be provided with a stock of permitted reserves to provide for at least 25 years. New plant on a greenfield site should be provided with a stock of permitted reserves lasting more than 25 years.					✓		
59	Development plans should normally allocate sufficient land for mineral extraction for cement manufacture to provide for the maintenance of landbanks. Structure plans should set out the general principle of maintaining a landbank for cement plant, and mineral local plans should seek to identify areas where minerals will be worked. Sufficient land should be allocated to maintain this landbank throughout, and at the end of, the plan period.					✓		
60	It should be noted that the general commitment to maintain a landbank does not remove a mineral planning authority's or the Secretary of State's discretion to refuse planning permission for an application should there be overriding environmental objections. Planning applications may also be refused within areas allocated in development plans if the actual development proposal is judged to be unacceptable on environmental grounds.							
61	In most parts of the country, mineral planning authority boundaries should constitute a suitable basis on which to base a landbank policy, but mineral planning authorities may choose to adopt either a sub-regional or a sub-county approach as appropriate. Whatever area is chosen for landbank purposes, it is essential that production and reserve data should be available and the industry and mineral planning authorities should work together to facilitate this.							
63	The Government takes the view that it is in the national interest to maintain and increase cement production, and to increase the scope for competition. Sufficient reserves of minerals should be permitted for this. More permitted reserves are particularly needed where the size of the landbank is below the levels recommended in para 58 above. The cement makers and the mineral planning authorities should examine the feasibility of bringing forward planning proposals for new raw material reserves at the best balance of economic, environmental and social cost. In undertaking this the planning authorities may wish to have regard to the forecast at Annex B of the long term future demand for cement minerals.							
64	Working Practices, Restoration, Aftercare and After-use The Government looks to the cement industry to adopt working practices in their mineral extraction operations which will cause the least adverse environmental impact and to endeavour to be a good neighbour. The Government has commissioned research into the environmental effects of surface mineral working and this will provide the basis for further advice on good environmental practice for the minerals industry generally. The Government will expect the cement industry to take account of such guidance in operating its present sites and in any future operations.							
65	It is established Government policy that restoration and, usually, aftercare will be required to make mineral workings fit for beneficial after-use and environmentally acceptable. This may include restoration to agriculture, forestry, management for nature conservation, provision of public open space, recreation or other development……Wherever practicable, mineral planning authorities and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved…							
66	Reinstatement of sites to an appropriate after-use should be an integral part of the planning of raw material supplies for the cement industry. One of the distinguishing features of the industry is the scale and duration of its mineral extraction operations, which can transform the local landscape. For each operational site the industry should therefore draw up a quarry plan, where such a plan is not							

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	already in existence, in consultation with the mineral planning authority, for the screening and phasing of working, restoration and aftercare, and the longer term after-use and changes to the landscape. As recognized in MPG7, whilst final site reclamation and possible after-uses must be considered at the time of a planning application and appropriate provision made in the conditions, it is likely that most such schemes prepared before extraction commences will require updating and amendment during the lifetime of a working. Planning conditions may allow for this by requiring a general treatment scheme to be prepared and agreed before extraction starts, to be followed up by submission of detailed schemes for particular phases as they are completed and by setting a time limit for submission of the final reclamation plan which is commensurate with the duration of the mineral permission.							
67	Restoration of mineral sites may involve infilling all or part of the site with waste material. Where wastes other than those generated through the extraction process are being brought onto the site, the nature of the wastes to be used and the method of working need careful attention at the planning application stage and in obtaining an appropriate licence from the waste disposal authority. The Environmental Protection Act will require authorities to be satisfied that there are no hazards or difficulties arising from the landfill before they can provide a Certificate of Completion. This could involve particularly lengthy periods (20-30 years) but, if landfill gas from any site (eg clay extraction and backfill) could be utilised as a fuel for any adjoining cement plant, the resulting integrated scheme of extraction and use might optimise use of materials and restoration of land. Where the quarry plan envisages an afteruse involving built development, restoration should entail using inert waste to avoid the dangers of methane generation.							
68	It will be important for MPAs and the industry to work together, using both statutory and voluntary procedures available, to achieve satisfactory solutions for these older operational sites. The aim should be to do this within 2 years of the publication of these guidelines.							
70	<u>Speeding the Planning System</u> The Government accepts that quarrying proposals are often complicated and can arouse local controversy, and it is important that all material considerations receive careful attention. Nevertheless, the Government expects mineral planning authorities to determine applications expeditiously. The industry itself can help to reduce possible delay by discussing its development proposals with the authority, the local community, relevant local bodies such as the County Wildlife Trusts and the appropriate statutory bodies at an early stage before planning applications are formally submitted. Applicants should aim to provide authorities with as much information as possible to help them determine the application. If the authority needs further information, every effort should be made to ensure such requests are comprehensive at the outset. Mineral Planning Guidance Note 2: "Applications, Permissions and Conditions" (MPG2) provides further guidance on the drawing up and determining of planning applications.							
72	<u>Potential for waste disposal and energy conservation</u> However, there needs to be careful control of the overall chemistry to ensure emission limits are not exceeded, and account has to be taken of the production capacities, product quality, energy consumption and capital investment for the safe and practicable burning of potential wastes. Kilns using waste would need appropriate planning and waste disposal licensing consents (these will become waste management licences with the implementation of the 1990 Environmental Protection Act). HMIP should be consulted about proposals for burning wastes.							
73	The industry should look for opportunities to dispose safely of waste in this manner.							
74	Industry will continue to look for other such opportunities.							
79	<u>Implementation and Review</u> These guidelines will provide the basic framework for the planning of raw material for cement. They will be taken into account by the Secretaries of State when considering development plans and individual planning applications which come before them for decision.							
80	MPAs should have regard to these guidelines in formulating development plans and when considering development proposals. Development plans should recognise the need to make provision for a continuing supply of raw material in the vicinity of existing plant in a manner compatible with other environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied. The mineral plans should also maintain a landbank of							

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	permissions compatible with these objectives.							
81	The cement industry has an important role to play in co-operating with, and contributing to, the development plan process. For example, the successful application of landbank policies depends upon the ready availability of information on reserves and production. The industry should endeavour to ensure that proposals for mineral development reflect these guidelines and come forward at the right time. The industry is also responsible for drawing up the quarry plans, in consultation with the mineral planning authorities, for achieving a high standard of operation while the site is being worked and for restoring the site when working has finished.							
82	These guidelines have been based on the best information currently available. They will need updating to reflect changes in demand, technology and environmental standards, but the policy of establishing landbanks will provide flexibility. The guidelines will be reviewed every four years.							

MPG13: GUIDELINES FOR PEAT PROVISION IN ENGLAND

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	The Government wishes to see indigenous mineral resources developed within its broad objectives of encouraging competition, promoting sustainable economic growth, assisting the creation and maintenance of employment, and protecting the environment. For the economic well being of the country, it is essential that there is an adequate and steady supply of minerals to meet the needs of the community and to foster economic growth. At the same time, the Government recognises that peat is ultimately a finite resource, and that its extraction can have a significant environmental impact (see the UK Strategy for Sustainable Development (Cm 2426 - January 1994)).							
	The implications of sustainable development for minerals planning in general are that avoidable and irretrievable losses of natural resources, such as minerals, should be limited. The objectives of sustainable development for minerals planning are: i) to conserve minerals as far as possible, while ensuring an adequate supply to meet the needs of society; ii) to minimise production of waste and to encourage efficient use of materials, including appropriate use of high quality materials, and recycling of wastes; iii) to encourage sensitive working practices during minerals extraction, and to preserve or enhance the overall quality of the environment once extraction has ceased; iv) to protect designated areas of critical landscape or nature quality from development, other than in exceptional circumstances where it has been demonstrated that development is in the public interest.	✓	✓			✓		
	The Government's objectives for nature conservation are to ensure that its policies contribute to the conservation of the abundance and diversity of British wildlife and its habitats, or minimise the adverse effects on wildlife where conflict of interest is unavoidable, and to meet its international responsibilities and obligations for nature conservation.							
	An essential task for Government, local authorities, and all public agencies concerned with the use of land and natural resources is both to make adequate provision for development and economic growth and to ensure effective conservation of wildlife and natural features.							
	The Biodiversity Action Plan has set out underlying principles and objectives, to conserve and enhance biological diversity within the UK, and to contribute to the conservation of global biodiversity through all appropriate mechanisms. Objectives for conserving biodiversity are: i) To conserve and where practicable to enhance: a) the overall population and natural ranges of native species and the quality and range of wildlife habitats and ecosystems; b) internationally important and threatened species, habitats and ecosystems; c) species, habitats and natural and semi-natural habitats that are characteristic of local areas; d) the biodiversity of natural and semi-natural habitats where this has been diminished over recent past decades. ii) To increase public awareness of, and involvement in, conserving biodiversity. iii) To contribute to the conservation of biodiversity on a European and global scale.							
	However, the Government wishes to continue to encourage the development of alternatives to peat for both the less demanding uses and of more specialised alternatives for more demanding uses…							
42	<u>Government Policies in Respect of Peatland in England</u> The Government's policy for peatlands in England is to: i) conserve a sufficient range, distribution and number of all peatland habitats, representing part of the critical natural capital of the country; and promote the wise use of the wetland resource within the nation's peatland heritage; ii) avoid wherever practicable the destruction of important archaeological remains in peatland;							

Paragraph	MPG13 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
	iii) enable the horticultural industry to continue to be supplied with peat; and also to encourage the development and use of suitable alternatives so that market needs can be met in different ways; iv) provide a suitable framework for updating old permissions for peat extraction, especially in respect of rehabilitation of sites.							
43	It is therefore the Government's intention that the future extraction of peat in England from any new sites should be restricted to areas which have already been significantly damaged by recent human activity and are of limited or no current nature conservation or archaeological value. Wherever possible, subsequent restoration of such sites should give priority to wetland rehabilitation and to the enhancement of the nature conservation resource.							
44	Government policy, as agreed in Article 4 of the Framework Convention on Climate Change signed in Rio in 1992 and ratified in 1993, is to adopt policies and take corresponding measures to protect and enhance greenhouse gas sinks and reservoirs. Undisturbed peatlands store large amounts of carbon…The presumption in this MPG against the exploitation of peatlands which have not been significantly damaged will therefore help to meet the UK's Rio commitment.							
45	The demands of the horticultural user markets should be met by a combination of home produced peat, imported peat, and alternative materials. The Government's commitment towards sustainable development and using resources prudently means that unnecessary wastage of resources should be avoided. Therefore, so far as possible, peat should be used for higher quality markets, while its use should be avoided or minimised where it is either not needed or not the best material, for example for general soil improving, and mulching. There may be further scope to reduce total usage of materials in some sectors. There should also be encouragement to use alternatives where these are suitable and represent other "sustainability" objectives such as recycling and waste minimisation. The range of alternatives suitable for the more specialised uses may increase as further research is undertaken.							
51	Development Plans: General Considerations In preparing Minerals Local Plans and UDPs, local authorities in appropriate areas should take into account the policies contained in this MPG. They should make provision for the conservation of peatland habitats and for identification of specific sites or areas which meet the criteria for selection for future peat working, as explained in paragraphs 52 to 61. Early discussion with the minerals industry and with English Nature (EN) and English Heritage (EH) in the preparation of plans will be helpful.							
52	Policies for Nature Conservation of Peatland Habitats and for Peatland Archaeology in Development Plans Sites of raised bog and other peatland habitats of key nature conservation importance should be identified in development plans…Planning authorities should seek advice from EN, who have a statutory role in advising on development plan preparation…Plans should also identify principal areas of major archaeological significance after consultation with the County Archaeological Officer (see paragraphs 75 to 77).	✘	✘			✘		
53	Criteria for Selection of Sites for Future Peat Working: General Approach Peat producers, and other suppliers of materials to the user markets, should determine the level of output they wish to aim for in the light of market conditions.	✘	✘			✘		
56	Guidelines for Development Plans MPAs should have regard to all material considerations when determining applications on these areas, including other national and regional policy guidelines.							
57	To conserve a full range of peatland habitats and archaeological deposits, peat extraction from bogs which retain a high level of nature conservation or archaeological interest should be permitted only in exceptional circumstances. These circumstances are only likely to arise where it can be demonstrated conclusively that extraction will not adversely affect the habitats, species or deposits being safeguarded. The lowland raised bogs of high nature conservation interest will primarily relate to sites, or areas within bogs, which are defined in the National Peatland Resource Inventory as land-use classes P1-P4, or where secondary peat surfaces contain valuable peat-forming species (see Annex B). These are areas which retain a primary peat surface or include a significant proportion of species characteristic of a lowland raised bog habitat. The Secretary of State would normally call-in, for his decision, planning applications which are likely significantly to affect these classes of raised bog. The advice of EN will be taken into account in deciding which applications are likely to have such effects. It is not expected that such sites would be identified for extraction in development plans. The archaeological value of all peatland is not yet systematically recorded, but EH has supported extensive survey work in							

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	several major areas and the results of this, and other, survey work is available in the Sites and Monuments records maintained by County Archaeological Officers, who should therefore be consulted by MPAs during plan preparation.							
58	When preparing development plans and in considering any applications for their extraction, mineral planning authorities will need to consider the nature conservation interest of these areas or sites. Where the peatland retains a primary surface, which includes a significant proportion of species characteristic of ombrotrophic (bogs) or minerotrophic (fens) conditions, planning permission should, as in the case of raised bogs, only be granted in exceptional circumstances. MPAs should consult EN when determining such cases.							
59	To ensure that as far as possible any areas identified in a development plan for peat extraction can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that sites are:- i) of little or no nature conservation or archaeological value; ii) of economically workable deposits; iii) likely to become available to the minerals industry within the plan period; and iv) are not constrained by other land-use policies (eg high quality agricultural land).							
60	Where the criteria listed above cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. But plans must be clear and unambiguously expressed in accordance with PPG12.							
62	<u>Areas Designated for their Nature Conservation Importance: General</u> Planning authorities must consult EN on any development proposals which are likely significantly to affect these sites (see PPG9 "Nature Conservation").							
	As a matter of policy the Government wishes development proposals affecting potential SPAs and candidate SACs before they have been agreed with the European Commission to be considered in the same way as if they had already been classified or designated.	✘	✘			✘		
	The Government has chosen to apply the same considerations to development proposals affecting listed Ramsar sites as are applied to SPAs and SACs (see PPG9).							
69	<u>Nature Conservation, Including Conservation of the Natural Beauty and Amenity of the Land, in Development Plans</u> Structure Plans and part I of unitary development plans set out general policies and proposals on key strategic issues, taking account of the appropriate Published: 10 May 2002 national and regional policy guidance. They should identify key sites of nature conservation importance, such as SSSIs, NNRs, SPAs, SACs and Ramsar sites, to establish a strategic framework and exemplify the particular characteristics of nature conservation interest in the plan area in their national and international context. Policies to be applied to these sites should reflect their relative significance and place particular emphasis on the protection of internationally important sites. The detailed policies in local plans and part II of unitary development plans should conform to this framework.							
70	Structure plans, local plans and UDPs must include policies in respect of the conservation of the natural beauty and amenity of the land. Arising from article 10 of the Habitats Directive, regulation 37 of the Habitats Regulations states that such policies shall include policies encouraging the management of features of the landscape which are of major importance for wild flora and fauna. Suitable planning conditions and obligations may promote such management (for further advice see PPG9 "Nature Conservation").							
71	<u>National Parks and Areas of Outstanding Natural Beauty</u> Planning Policy Guidance Note 7 - "The Countryside and the Rural Economy" (PPG7) provides detailed Government planning policies for development in National Parks, the Broads and AONBs. The same policies apply to the New Forest Heritage Area. The Government considers that major developments should not take place in these areas save in exceptional circumstances. Because of the serious impact that mineral developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all mineral developments should be demonstrated to be in the public interest before being allowed to proceed.							
	Consideration of mineral applications in such areas should therefore include an assessment of: i) the need for the development in terms of national considerations of mineral supply; and the impact of permitting the development, or							

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	refusing it, on the local economy; ii) whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iii) any detrimental effect of the proposals on the environment and landscape, and the extent to which that should be moderated; iv) in the case of extensions to existing workings, the extent to which the proposal would achieve an enhancement to the local landscape.							
	Proposals for mineral working also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance Note 2 - "Green Belts" (PPG2). Mineral extraction need not be inappropriate development in Green Belts; it need not conflict with the purposes of including land in Green Belts provided that high environmental standards are maintained and that the site is well restored.					✘		
76	Archaeological and Other Cultural Interests The peat industry should, wherever practical, ensure that important archaeological and historic remains or features are physically preserved, and MPAs should have regard to the desirability of preserving the wider historic landscape (as defined in PPG15, paragraph 6.40) and of the archaeological heritage when determining planning applications…There should be early consultation with the County Archaeological Officer (listed in PPG16). Where physical preservation is not practical, MPAs should ensure that appropriate provision is made for the recording of archaeological remains, the conservation of significant artifacts and the publication of scientific results.							
77	Some of the most important sites in peatland may be scheduled as ancient monuments (Ancient Monuments and Archaeological Areas Act 1979), in which case scheduled monument consent (SMC) from the Secretary of State for National Heritage, who is advised by EH, must be obtained before any work can commence.							
78	Agricultural Land The Government's policy, as set out in PPG7, is that the best and most versatile agricultural land is a national resource for the future and considerable weight should be attached to protection of such land against irreversible development.							
79	Therefore, when considering the allocation of land for mineral development and in deciding any application for planning permission affecting agricultural land the agricultural implications must be considered together with the environmental and economic aspects, and the feasibility of a high standard of restoration.							
81	Forestry The scope of the Government's forestry and environmental policies for woodlands includes encouraging the establishment of new woodlands which enhance the character and appearance of landscapes and promoting the restoration of derelict land to woodland.							
83	Other Developments Affecting Peatlands Careful consideration should be given to the need for any other types of development to take place on peatlands.							
89	Treatment and Reviews of Existing Permitted Extraction Sites Wherever practical, a priority for after-use schemes should be to provide areas for nature conservation unless a different after-use is already specified by the planning permission and remains technically achievable and appropriate. However, this may not always mean re-creating the conditions which would lead to the re-establishment of a raised bog system. The topics to be covered in rehabilitation and after-use schemes should include: the phasing of remaining extraction; hydrology, water controls and drainage; depths of peat and its characteristics; underlying geology; extraction methods; preservation or recording of archaeological remains; final excavated site topography; vegetation protection, regeneration and management; methods and timescales of site management.							
90	For some sites the terms of existing legal agreements between EN and a site owner or operator should be drawn on in the preparation of schemes to submit to the MPA.							
91	Where an existing site under consideration forms part of a raised bog which also retains areas of nature conservation or archaeological importance, there should be appropriate safeguards to minimise the risk of damage to such areas. In some cases this may include the need to introduce buffer zones between the worked and undisturbed areas; but such measures should be							

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	proportionate to the importance and size of the undisturbed areas and their conservation and/or archaeological value.							
92	Considering Individual Planning Applications MPAs should have regard to all material considerations when determining applications, including this Guidance Note and relevant policies in development plans. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, archaeological, agricultural, landscape, traffic, site restoration and other effects of the proposals that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them as appropriate.							
96	Mineral planning authorities should have regard to the guidance given in paragraphs 52 to 61.							
98	Transport The Government would like to see as much freight as possible carried by rail or waterway rather than by road wherever possible.							
99	Working Practices, Restoration Aftercare and After-use It is established Government policy that restoration and aftercare will be required to make mineral workings environmentally acceptable and fit for beneficial after-use. This may include restoration to peatland habitats, agriculture, forestry, or other forms of amenity use. Applications for extraction of peat need to include information which demonstrates that the site can be restored satisfactorily; and if there is serious doubt whether a new extraction proposal can meet this requirement then it is doubtful whether permission for working should be given. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.							
100	Reinstatement of sites to a condition suitable for an appropriate after-use should be an integral part of the planning of peat extraction.							
101	Implementation and Review This Guidance Note will provide the basic framework for the planning for provision of peat and alternatives for soil improvers and growing media. It will be taken into account by the Secretary of State when considering development plans and individual applications which come before him for decision.							
102	MPAs should take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of materials in a manner compatible with environmental objectives. The plans should also provide guidance on the environmental objectives and the development control criteria which will be applied.							
103	The peat industry should endeavour to ensure that proposals for mineral development are consistent with this Guidance Note and that they are brought forward at the right time. The industry is also responsible for achieving a high standard of operation while a site is being worked and for restoring the site when working has finished.							
104	This Guidance Note has been based on the best information currently available. It will need to be kept under review and updated to reflect changes in demand, development of alternatives and environmental standards							

MPG15: PROVISION OF SILICA SAND IN ENGLAND

Paragraph	MPG15 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
17	Regional Position MPAs in other areas should also take account of this guidance in drawing up minerals local plans.							
28	National Policy Framework: Supply The Government believes that for the economic well-being of the country it is essential that the silica sand consuming industries continue to receive an adequate and steady supply of indigenous raw material so that they can continue to meet the needs of the community for products which use silica sand in their manufacture. It is important that supplies to the manufacturing sector should be provided in the most environmentally acceptable way and with regard to the principles of sustainable development.							
30	Sustainable Development For silica sand, this means that the planning system should ensure that the best and most efficient use will be made of the available resources, so that the extraction of new reserves is limited to what is necessary to meet the needs of the current generation; and that the overall quality of the environment affected by silica sand extraction should be maintained or improved over time. Silica sand deposits should not be sterilised by other forms of development which would make them unavailable for use by future generations without good land-use planning reasons. It is desirable that high grade silica sands should as far as possible be conserved for use where they are required.							
31	Use of Materials It is important that silica sand resources should be used as efficiently as possible and that unnecessary wastage of resources should be avoided. Within the general definition of silica sand, there are certain high grade materials which, wherever possible, should be reserved for industrial end-uses which require such sand and for which there is no readily available alternative. …It is in the national interest that high grade silica sand should not be wasted and that its use in the construction industry should be minimised.							
32	Recycling MPAs and the extracting and consuming industries should therefore consider what steps they can take to encourage re-use/recycling where there are environmental benefits to be gained.							
	In recent years, the glass and foundry industries have made efforts to recycle, both to save sand and to reduce energy consumption. The Government wishes to encourage this and looks to the consumer industries to monitor the amounts of their products which are re-used or recycled and, where appropriate, to set targets for increased re-use/recycling							
	The Government encourages greensand operations to aim as far as possible to achieve a high level of recycling. In the case of resin sand operations, the Government encourages industry to strive for technological advances which will increase the amount of recycling of this type of sand.							
	The consumer industries are encouraged to explore further the scope for such innovation, including technology which would enable the quantities of silica sand required to be reduced further.							
40	Silica Sand Provision in Development Plans In carrying out their development plan functions, local authorities in areas which have historically produced silica sand, or are known to contain silica sand deposits, should take into account the policies contained in this MPG. They should recognise the material scarcity of silica sand and also aim to make provision in their development plans for an appropriate level of production which takes account not only of recent production levels in the area, but also of regional and national needs, through the identification of specific sites and the inclusion of preferred areas or areas of search.							
41	To ensure that the areas identified in the development plan can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that the land is: i. underlain by potentially economically workable deposits of mineral; and							

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	ii. likely to become available to the minerals industry within the plan period. Where these points cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. Plans must be clear and unambiguously expressed in accordance with PPG12.							
42	In order to assist in the delineation of these areas in development plans, the silica sand industry should co-operate with MPAs wherever possible by providing information about the location of mineral resources in their areas.							
45	Landbanks However, MPAs in areas containing silica sand deposits need to make an appropriate contribution to national requirements and should therefore aim to maintain landbanks of silica sand permissions, as far as this is possible and realistic, provided that the industry comes forward with suitable applications.							
47	Due to the national need for silica sand, it is important that each production site is adequately provided for, unless exceptional circumstances prevail. In practice, this will mean that most sites will require a reasonable level of reserves. MPAs should aim therefore to ensure that landbanks of at least 10 years are maintained for individual sites. However, in operating this policy, MPAs will also need to consider the Government's general policy of encouraging competition. The need for the mineral must be balanced against environmental constraints and there may be overriding environmental reasons why the stock of permitted reserves at some sites may not be replenished as they are used up. Care and flexibility will be needed in addressing these issues. In practice, there may be difficulties as production data may be confidential at site level, but it may be difficult to calculate landbanks or to make specific provision in mineral local plans without this information. It will therefore be in both the MPAs and industry's interests to maintain a dialogue and informed analysis of actual need and supply.							
	In the case of significant new capital investment by the industry in existing or new sites, it may be necessary for the plant to be provided with a stock of permitted reserves to provide for at least 15 years, or substantially longer than this, for greenfield sites, depending on the circumstances.							
52	The landbank requirement should be calculated by multiplying the average of the last 3 years' production for which figures are available by the appropriate number of years or by reference to levels of provision set out in the development plan. The calculations should have regard to the quality of sand and the use to which the material is to be put.							
53	Safeguarding Silica sand is a scarce resource and MPAs should, as far as possible and in co-operation with other planning authorities, safeguard deposits which are, or may become, of economic importance, against other types of development or other constraints which would be a serious hindrance to their extraction.							
54	It is essential to consider the need for silica sand over a longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the timescales and scale of investment of the proposed mineral working in order to prevent undue delay. Where it is possible to extract silica sand prior to some other more permanent form of development this should be encouraged unless there are good planning reasons for not doing so. MPAs may define Mineral Consultation Areas (MCAs) in their plans. These enable county and district councils to liaise where surface development would be likely to affect or be affected by the winning and working of minerals. MPG1 (paragraphs 36-39) provides further advice on MCAs.							
63	Considering Individual Planning Applications: General Planning applications should be determined in accordance with the development plan unless material considerations indicate otherwise. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered the potential effects when preparing planning applications and has sought to mitigate them as appropriate.							
64	Assessment of Need and Supply As far as silica sand is concerned, authorities should have regard to the balance of real need and real supply. But landbank							

Paragraph	MPG15 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
	calculations and estimates of real supply can seldom be exact and decisions on individual applications should not be determined on an over-precise calculation of whether supply matches the landbank requirement.							
65	In considering applications, consideration should be given to the position in respect of permitted reserves and whether the particular nature and qualities of the silica sand, such as suitability for particular end-use not met by other available sources in the area or region, in itself justifies granting permission.							
66	It is important to draw a distinction between the reasons for a landbank as discussed in paragraphs 43-52 above and the need for the size of a particular permission to reflect the levels of capital investment required at specific sites.							
69	Environmental Effects The silica sand industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns on site operation and restoration. Any environmental damage or loss of amenity caused by mineral working should be kept to a minimum.							
70	Operators Proposals In considering proposals for minerals development, authorities will wish to satisfy themselves that the operator's proposals for managing the site, and for restoration and aftercare, will achieve high standards of operating and reclamation practice in accordance with modern planning requirements…MPAs should thus have regard to the practicality of the proposal before them.							
74	Transport Planning authorities should, individually or collectively, have regard to these factors when drawing up policies in their development plans on such matters as transport modes, routing and the safeguarding of freight depots.							
75	Discussions should take place with MPAs at an early stage on how traffic generated by the proposal will be managed to minimise environmental disturbance.							
77	Planning authorities should, as far as they reasonably can, safeguard existing rail head facilities and encourage new ones.							
78	Water Interests MPAs and the industry should take into account the body of legislation in relation to water supply, pollution control and land drainage…The Environment Agency should be consulted about all new development proposals. Where working would take place below the natural water table applications will need to include proposals for a suitable aftercare.							
79	Working Practices, Restoration, Aftercare and After-use Applications for extraction of minerals such as silica sand need to include information which demonstrates that the site will be restored satisfactorily.							
80	Planning applications should include comprehensive plans and statements as to how sites will be progressively worked with a view to achieving particular restoration enabling appropriate after-use to take place.							
82	However, all planning applications should contain sufficient detail of working and restoration methods and programmes to allow an assessment to be reached on the viability of the application and of proposals to achieve the intended after-uses. Operators should therefore draw up Quarry Plans to accompany planning applications.							
83	Where possible working and reclamation should be in a progressive manner……However, the aim should be to minimise the area open and disturbed at any one time and, where reasonably practicable, to secure progressive restoration of the site. Care should be taken to conserve all soil and soil-making materials suitable for use in restoration.							
84	Whether a wet after-use is acceptable will need to be considered alongside the policy on agricultural land set out at paragraphs 61-62 and in consultation with the Environment Agency.							
85	MPAs and the industry should bear in mind opportunities for habitat creation and enhancement even where nature conservation may not be the primary end-use of a site.							

Paragraph	MPG15 Policy (Abridged)	Cumbria County Council- Minerals and Waste Core Strategy	Cumbria County Council- Generic Development Control Policies	Wakefield Metropolitan Borough Council- Core Strategy	Wakefield Metropolitan Borough Council- Development Policies	Joint Lancashire Minerals and Waste Core Strategy	Leicestershire County Council – Minerals CS and DC Policies	North York Moors National Park- Core Strategy and Development Policies
88	Implementation MPAs must take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of silica sand in a manner compatible with environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied.							
89	The industry should endeavour to ensure that proposals for mineral development reflect this Guidance Note and that they are brought forward at the right time. The industry is also responsible for drawing up quarry plans, in consultation with the mineral planning authorities; for achieving a high standard of operation while the site is being worked; and for restoring the site when working has finished.							

Appendix 4 Local Development Document matrices continued...

HAMPSHIRE, POTSMOUTH SOUTHAMPTON AND NEW FOREST NATIONAL PARK, PLYMOUTH CITY COUNCIL, AND WILTSHIRE COUNCIL AND SWINDON BOROUGH COUNCIL

Key:

✓	Policy integrated
✖	Policy not integrated
	Not Applicable

MPS1: PLANNING AND MINERALS

Paragraph	MPS1 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
11	Exploration Consider carefully applications for mineral exploration in order to avoid or minimise adverse impacts on the environment.				
12	Survey Use the best available information on mineral resources within their areas and consider the social, environmental and economic benefits and constraints of working them.				
	Undertake regular assessments of the reserves for which planning permission has been granted for all mineral workings in their areas, taking into account the need for, distribution, production and uses of, each type of mineral, while maintaining mineral operators' reasonable needs for commercial confidentiality.				
	Assess the range, volumes and availability of waste material which may exist within reasonable proximity and which could provide suitable alternatives to primary minerals				
13	Safeguarding Define MSAs in LDDs	✓	✓	✓	✓
	Encourage prior extraction of minerals	✓	✖	✖	✓
	In two-tier planning areas, include policies and proposals to safeguard mineral resources within MSAs in county LDDs and show MSAs in district LDDs. Counties should define MCAs and should be reflected in district LDDs.	✖	✖	✓	✖
	District councils responsible for spatial planning of land defined in MSAs should not normally include policies and proposals in their LDDs for non-minerals development in those areas, or sensitive development around safeguarded mineral areas, where such policies would affect the potential for future extraction of minerals.				
	Safeguard existing, planned and potential rail heads, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals.	✓	✖	✓	✓
	Identify future sites to accommodate the above facilities and reflect any such allocations in the LDDs of district councils in two-tier planning areas.	✖	✖	✓	✖

Paragraph	MPS1 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
	Safeguard existing, planned and potential sites for mineral handling, processing and distribution. Where appropriate, identify future sites for these uses and reflect any such allocations in the LDDs of district councils.	✓	✘	✘	✓
14	Protection of heritage and countryside Where minerals development is proposed within, adjacent to, or where it is likely to significantly affect a European site (potential and classified SPA, candidate and classified SAC and listed Ramsar Sites), take account of the advice contained in PPS9 and the accompanying joint ODPM/Defra Circular.	✓	✓	✘	✓
	Do not permit major mineral developments in National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites except in exceptional circumstances.				
	Consideration of such applications should therefore include an assessment of: i the need for the development ii the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need for it in some other way; iii any detrimental effect on the environment, the landscape and recreational opportunities.				
	Do not normally grant planning permission for a proposed mineral development on land within or outside a SSSI, if it is likely to have an adverse effect on a SSSI.	✓	✓	✘	✘
	Ensure that the statutory protection given to many individual wildlife species, and the special protection afforded to European protected species, is fully taken into account when considering mineral proposals which might affect them.	✓	✓	✘	✓
	Consider carefully mineral proposals within or likely to affect regional and local sites of biodiversity, geodiversity, landscape, historical and cultural heritage.	✓	✓	✘	✓
	There is a general presumption against inappropriate development in the Green Belt, which should not be approved except in very special circumstances, mineral extraction need not be inappropriate development. However, in permitting mineral developments in Green Belts, authorities should ensure that high environmental standards are maintained during operation, and that sites are well restored to after-uses consistent with Green Belt objectives. All mineral-related developments in the Green Belt should be assessed against the policies in PPG2.	✓		✘	✘
	Adopt a presumption in favour of the preservation of listed buildings, nationally important archaeological remains, if mineral proposals would cause damage or have a significant impact on them, unless there are overriding reasons of national importance for the development to proceed.	✓	✓	✘	✓
	Do not permit mineral proposals that would result in the loss or deterioration of ancient woodland, unless the need for, and benefits of, the development in that location outweigh the loss of the woodland habitat.	✘	✘	✘	✓
	Take account of the value that existing woodland offers in terms of amenity and habitat, when considering mineral proposals.	✘	✘	✘	✘
	Where significant development of agricultural land is unavoidable, seek to use areas of poorer quality land in preference to that of a higher quality, except where this would be inconsistent with other sustainability considerations.	✘	✘	✘	✓
	Take account of the value of the wider countryside and landscape.	✓	✓	✓	✓
	Have regard to the positive or negative effects that minerals operations may have on rural communities and the extent to which adverse impacts of such operations could be moderated.	✓	✓	✓	✓
15	Supply Identify at the regional level, those minerals which are of national and regional significance and include policies for them in RSS.				
	Aim to source mineral supplies indigenously.	✓	✘	✘	✘

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	Before considering the extraction of primary materials, take account of the contribution that substitute or recycled materials, mineral products and marine dredged aggregates would make to the supply of materials.	✓	✓	✓	✓
	Ensure the best integration of social, environmental and economic costs and benefits is achieved, through applying the principles of sustainable development, by carefully considering how best to maintain an adequate and steady supply of minerals for the economy and society, commensurate with protecting the environment and securing the prudent use of natural resources, and set out policies to achieve this in RSSs and LDDs.	✓	✓	✓	✓
	Identify sites, preferred areas and/or areas of search, having taken account of environmental considerations, to provide greater certainty of where future sustainable mineral working will take place.	✘	✘	✘	✘
	Consider the benefits, in terms of reduced environmental disturbance and more efficient use of mineral resources, of extensions to existing mineral workings rather than new sites.	✘	✘	✓	✘
	Take account of the benefit, including the reduction in carbon emissions, which local supplies of minerals would make in reducing the impact of transporting them over long distances by road.	✘	✘	✓	✓
	Recognise the important role that small quarries can play in providing historically authentic building materials in the conservation and repair of historic and cultural buildings and structures.	✘	✘	✘	✘
	Where extraction of more than one mineral from a site is proposed, consideration should be given to any relevant planning guidance specific to each mineral.				
	Provide for the maintenance of landbanks, i.e. appropriate levels of permitted reserves, for non-energy minerals as far as is practicable from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage sites.	✓	✘	✓	**Policy contained in Core Strategy**
	Enable the minerals industry, so far as is practicable, to secure productivity growth and high and stable levels of employment, which are central to long-term economic performance and rising living standards.				
16	<u>Bulk transportation</u> Seek to promote and enable the bulk movement of minerals by rail, sea or inland waterways to reduce the environmental impact of their transportation.	✓	✘	✓	✓
	Promote facilities at ports and rail links that have good communications inland, so that bulk minerals can be landed by sea and distributed from ports, as far as is practicable, by rail or water.	✓	✘	✓	✘
	Safeguard and promote rail links to quarries where there is potential to move minerals by rail.	✓	✘	✓	✓
17	<u>Environmental Protection</u> Seek to protect and enhance the character of surrounding rural and urban areas by careful planning and design of any proposals for minerals development.	✓	✓	✓	✓
	Encourage mineral operators to adopt sound working practices to prevent/ minimise, environmental impacts to acceptable levels during the preparation, working and restoration stages.	✘	✘	✓	✘
	Encourage mineral operators to incorporate and maintain good environmental management practices into their company procedures and apply them during the operation of their sites.	✘	✘	✘	✓
	Require mineral operators to seek and maintain effective consultation and liaison with the local community before submitting planning applications and during operation, restoration and aftercare of sites.	✘	✘	✓	✓
	State the criteria to be used in assessing mineral proposals and in formulating planning conditions, to ensure that permitted operations do not have unacceptable adverse impacts on the environment or human health.	✘	✘	✓	✘
	Ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations caused by mineral extraction are in conformity with national guidance and are controlled, mitigated or removed at source, so as to reduce to an acceptable level any potential adverse	✓	✓	✓	✓

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	impacts on neighbouring land and property.				
	Encourage the establishment of mineral site transport plans in consultation with the local community, dealing with matters including routing, off-site parking, considerate driving and complaints procedures.	✘	✘	✘	✓
	Consider in association with the EA, the potential for mineral developments, individually or cumulatively, to affect the flow, quality and quantity of surface and groundwater supplies and the water table, taking account of best available options in preventing leachate generation and water pollution.	✓	✓	✘	✓
	Ensure, in association with the EA, that in areas at risk of flooding, mineral extraction proposals do not have a significant adverse impact on flood flows or flood storage capacity. Operators should demonstrate that mineral working should not materially increase the risk of flooding at other properties or locations and, where practicable, should increase flood storage capacity.	✓	✓	✓	✓
	Ensure that proposals for mineral extraction and the storage and tipping of mineral wastes are designed, and appropriate monitoring procedures set up, to ensure that the operation and restoration of the site does not create land instability and help prevent pollution of soil, air, surface water and groundwater.	✘	✘	✘	✘
	Ensure that proposals for mineral extraction from coastal cliffs, beaches and dune systems do not adversely affect the stability of the coastal environment, increase the rate of coastal erosion or vulnerability to flooding, or affect sensitive habitats, landscapes or Heritage Coasts.	✘	✘		
18	<u>Efficient use</u> Encourage the efficient use of all minerals and alternatives to them.	✓	✓	✓	✓
	Encourage high quality materials to be used for appropriate purposes, but taking account of the need to avoid undue delays to site reclamation.	✓	✘	✘	✘
	Minimise the amount of minerals waste produced in extraction, handling, processing and stockpiling.	✓	✘	✘	✓
	Maximise the potential for minerals waste to be used for recycling or in-site restoration, but if not required for these purposes and where practicable, identify a market for its potential use.	✓	✘	✘	✘
19	<u>Restoration</u> Take account of the opportunities for enhancing the overall quality of the environment and the wider benefits that sites may offer, including nature and geological conservation and increased public accessibility	✓	✓	✓	✓
	Consider the opportunities that sites may offer for the development of new woodland areas and for providing networks of habitats.	✓	✘	✘	✘
	In order to avoid the possibility of mineral working resulting in dereliction, ensure land is reclaimed at the earliest opportunity and that high quality restoration and aftercare of mineral sites takes place through the provision of guidance on suitable or preferred after-uses and reclamation standards, and the use of conditions and legal agreements, as appropriate.	✘	✘	✓	✘
	Ensure proposals for restoration and aftercare of sites include details of appropriate phasing of progressive restoration, final landform and landscape and monitoring procedures.	✓	✘	✘	✓
	Develop a strategy for inactive sites with planning permission for future working, which are considered unlikely to be reactivated in the foreseeable future.	✘	✘	✘	✘
	Maintain or improve the Public Right of Way network around restored mineral sites as far as practicable.	✘	✘	✘	✓
	Do not seek or require bonds or other financial guarantees to underpin planning conditions, except as set out in MPG7.				
	Where restoration of mineral workings is through landfill or to a wetland habitat, consult the owner or operator of civil and military aerodromes within 13km, in order to assess the likelihood of increasing the bird strike hazard.				

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	Annex 1: Aggregates				
3.2	RPBs should apportion the Regional Guidelines to the local authority level in collaboration with their constituent MPAs, taking account of technical advice from the RAWPs. The apportionment should be subject to sustainability appraisal, incorporating strategic environmental assessment.				
3.3	RAWPs will undertake annual monitoring of aggregates reserves and supply and will prepare commentaries on results, especially supply and demand, for the Department and the RPBs. Where necessary, RAWPs should liaise with the Regional Technical Advisory Bodies on planning for the management of wastes.				
3.4	RPBs must have regard to the current National and Regional Guidelines for Aggregates Provision in England, in preparing RSS. They should use the process of reviewing and revising RSS to update sub-regional apportionments. If a MPA notifies the RPB that it is unable to identify sufficient resources to meet the apportioned supply over the plan period at acceptable environmental cost, the RPB should consider the consequences for supply and demand within the region taking advice from the RAWP, and consulting the Department if there are likely to be national implications. A shortfall in one part of a region should, where practicable, be made up for elsewhere in the same region.				
3.5	The Secretary of State will, where appropriate, intervene in a RSS that does not take full account of the regional aggregates guidelines and of agreed sub-regional apportionments.				
3.6	In preparing their LDDs, MPAs should make provision for the sub-regional apportionment of the current National and Regional Guidelines for land-won aggregate in the approved RSS or, if there is not an approved RSS, as agreed by the RPB and endorsed by the Secretary of State.	✓	✓	✓	
	Provision should take the form of specific sites, preferred areas and/or areas of search identified in LDDs. An approach to this work is set out in the MPS1 Practice Guide. Specific provision may need to be made for aggregates that meet particular or demanding specifications, such as those for high polished stone value, building or asphalting sand.	✓	✘	✓	✘
3.9	It is important that, once identified, the main options considered for making the agreed provision are subject to sustainability appraisal before leading to a preferred option in LDDs.				
3.10	If it is not possible for a MPA to identify sufficient resources in its area to meet the apportioned supply over the plan period at acceptable environmental cost, this should be reported to the RPB as soon as possible.				
	The Secretary of State will, where appropriate, intervene in the preparation of LDDs where MPAs do not pay due regard to the agreed apportionment.				
4.1	MPAs should use the length of the landbank in its area as an indicator of when new permissions for aggregates extraction are likely to be needed. The landbank indicators are at least 7 years for sand and gravel and at least 10 years for crushed rock. A longer period may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets, and productive capacity of permitted sites. A landbank below these levels indicates that additional reserves will need to be permitted if acceptable planning applications are submitted. Because individual sites, when permitted, need sufficient reserves to be economically viable, consideration of the landbank needs to be flexible enough to allow for this. A large existing landbank bound up in very few sites should not be allowed to stifle competition.				
4.2	MPAs should consider and report on the need to review policies in their LDDs as part of their annual monitoring report to the Secretary of State. This should be done in time to allow for action before the remaining provision falls below the agreed apportioned level. If review and updating take place regularly then maintaining a landbank beyond the end of the plan period is not an issue.				
4.3	If, taking all of these matters into account, existing landbanks are judged by a MPA ton be excessive: • new planning permissions should only be given where it can be shown that demand could not be met from the existing permitted reserves, for example, for reasons of type and quality of the aggregate and/or distance to the market; • the industry should consider voluntarily agreeing to revocation, or prohibition orders, in respect of planning permissions at sites that are unlikely to be worked again.				

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4.4	MPAs should carry out, in consultation with the RAWPs and other relevant bodies, and publish the results of, regular reviews of sites that have not been worked for 10 years or more, to assess whether production is likely to begin again. Sites that individual operators agree are unlikely to be worked again should be excluded from the landbank calculation, and they should be made subject to prohibition orders to remove the possibility that subsequent changes in ownership could unexpectedly revive development proposals.				
	Where there is a distinct and separate market for a specific type or quality of aggregate, for example high specification aggregate, asphalting sand, building sand or concreting sand, separate landbank calculations and provisions for these may be appropriate.	✘	✘	✘	✘
5.1	It is Government policy to encourage the greatest possible use of alternatives to primary aggregates. The National and Regional Guidelines for Aggregates Provision in England set a target that will be reviewed annually and revised when necessary. Guidance on planning for waste management is contained in Planning Policy Statement 10.				
5.2	Where mineral or other wastes suitable for use as aggregates have been deposited in tips, without the benefit of planning permission for future use, and these have revegetated and blended into the landscape, any applications for working of these materials should be dealt with in the same way and, if permitted, worked to the same standards as a successful new application for primary mineral extraction.				
6.1	It is Government policy to encourage the supply of marine-dredged sand and gravel to the extent that environmentally acceptable sources can be identified and exploited, within the principles of sustainable development.				
7.1	Identifying, assessing, operating and restoring borrow pits should be undertaken to the same standards as those for long-term mineral workings and should be subject to similar levels of consideration of environmental impacts.	✓	✘	✘	✘
	Annex 2: Brick Clay				
3.1	MPAs should ensure that brick clay resources are safeguarded in accordance with MPS1. Some types or qualities of brickclay that have desirable properties, especially Etruria Marl and fireclay, are nationally, regionally or locally scarce. Relevant MPAs should safeguard acceptable sources of Etruria Formation clays and fireclays from other types of development and should, where racticable, encourage prior extraction of clay where built development is planned.	✓		✓	✓
3.2	It is generally desirable that brick clay should be extracted as close as practicable to the brickworks that it is supplied to. MPAs should initially consider the potential for extraction of brick clay close to the works and the potential for extensions to existing planning permissions to maintain supplies. Where supply is needed from more distant sources these may exist in a MPA's area other than that where the brickworks is located. The relevant LPA should therefore liaise in planning for appropriate sources of provision. Where a works is likely to require supplies from more than one region, the relevant RPBs should assist in the necessary discussions.	✓		✘	✘
3.3	MPAs should have regard to the need for clay supply for local use and repair of heritage buildings to meet the objectives of PPS1, and should assess the potential for environmentally acceptable extensions to, and replacements for, such sites. Policies should be proportionate to the levels of potential impacts.	✘		✘	✘
3.4	When developing planning policies and considering planning applications, MPAs and LPAs should take account, as appropriate, of: • the need for provision of brick clay from a number of different sources to enable appropriate blends to be made. Where materials for blending need to be supplied from various sources, or for some types of clay that are used in small quantities for blending, it may be necessary to hold stocks of such clay at the brickworks or elsewhere; • the need to provide a stock of permitted reserves to support the levels of actual and proposed investment required for each new or existing manufacturing plant and the maintenance and improvement of existing plant and equipment. This will normally be sufficient to provide for 25 years of production. Separate provision may be needed for particularly scarce clays, such as Etruria Marl and fireclay, that will serve a number of works, sometimes over long distances; • the need to meet the likely level of demand for clay at each manufacturing plant, part or all of which may sometimes have to be fulfilled from another MPA area, to avoid having to meet unforeseen demands in environmentally damaging ways; • in some cases, the scope to use negotiated planning agreements to restrict, if necessary, the use of the clay extracted for brick making to the associated brickworks in order to reduce environmental impacts; and the need to recognise the potential for sales of clay for other uses, particularly engineering purposes, such as lining, daily cover and capping material for landfill sites, the lining of canals, lakes and ponds, as construction fill or as bulk fill suitable for roadway construction or for the manufacture of lightweight aggregate or cement. In	✘		✘	✘

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	some cases, clay pits may be operated mainly or wholly for these other purposes rather than for brick clay extraction.				
3.5	Where scarce reserves of Etruria Formation clays or fireclays cannot be used when extracted, consideration should be given to the potential for stockpiling the material on an environmentally acceptable site, either on or in the ground, until it is needed. Proper account should be taken of the environmental impacts that are associated with stockpiling sites when considering whether these should be provided.	✘		✘	✘
3.6	MPAs should encourage coal producers to make the best possible use of fireclay reserves including, where practicable, finding a market for any fireclay associated with the coal that is being extracted, so that it remains available for use rather than being replaced in the void during site restoration.	✘		✘	✘
3.7	Where a brickworks is supplied from a number of clay pits some distance from the works, impacts of road traffic between these and the works should, as far as possible, be minimised through off-road transport, such as field conveyor systems, dedicated haulage routes, and careful consideration of distribution networks and vehicle routes.	✘		✘	✘
3.8	• MPAs should liaise with the Environment Agency and LPAs to ensure that where planning conditions for manufacturing plant are necessary they should complement, not duplicate, conditions contained in IPPC permits.				
	The brick, clay pipe and clay tile manufacturing industry is encouraged to ensure that: • when clays are to be blended, the resulting blend should not contain a proportion of premium clays in excess of that needed for the specified use.	✘		✘	✘
	Annex 3: Natural building and roofing stone				
3.1	RPBs and the Mayor of London should set out policies in their RSSs or the Spatial Development Strategy in London, for safeguarding nationally, regionally and locally significant building stone resources.				
3.3	Many important sources of building stone have been long disused, and would need a new planning application to be worked again. Important historic quarries should be safeguarded, as far as practicable, where it can be shown: • that the quarry was the original source of stone used in the construction of a historic building or monument; or • that the stone is technically compatible with material in the structure to be repaired; and • that stone from the quarry is, or will be, required for restoration or conservation purposes in the absence of viable alternatives.	✘	✘	✓	✘
3.4	MPAs should consider whether small-scale extraction of building stone might be sustainable at, or close to, relic quarries, some of which have been designated in respect of industrial archaeology, wildlife and geological conservation, where small scale extraction would contribute to repair of historic buildings without compromising the requirement to protect designated site. Any extraction and restoration proposals should have proper regard to the purposes of the designation both during and after extraction.	✘	✘	✘	✘
3.5	LPAs should notify Natural England and English Heritage when a development proposal is made which affects an old building stone source to provide an opportunity for its significance to be assessed.				
3.6	MPAs and LPAs should have regard to the local, regional and national need for certain building and roofing stones for the conservation and restoration of England's historic built environment where their use is specified: • because of aesthetic or technical properties, particularly where English Heritage advises that stone used for restoration or conservation purposes must be a compatible match, usually from a similar lithological horizon as the stone that was originally used; • to help meet the objectives of PPG15.	✘	✘	✓	✘
3.7	MPAs and LPAs should liaise on and have regard to the local, regional and national need for certain building stones for new construction, within the context of the RSS, where their use is specified because of: • proven durability; • aesthetic or technical properties, particularly where new construction is to take place in the midst of older buildings constructed of a	✘	✘	✘	✘

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	certain stone; and • any design requirements set out in local design guides, planning policies and supplementary planning documents.				
3.8	Where an exact match of stone is not possible, potential alternative sources of supply, if any, should be considered.				
3.9	MPAs should, as far as is practicable, identify in their LDDs, quarries of importance to the built heritage, whether disused or active, and describe the approach to be taken to these in terms of minerals and other planning applications.	✘	✘	✓	✘
3.11	Each proposal needs to be considered on the basis of its specific characteristics and potential environmental and landscape impacts, and: • whether formal environmental assessment under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 ("the 1999 EIA Regs") is justified for proposals to develop and operate small stone quarries; and • where proposals to re-activate dormant quarries are submitted, MPAs/LPAs will, under the Reviews of Interim Development Order permissions and Old Mineral Permissions (under the Planning and Compensation Act 1991 and Environment Act 1995 respectively), have to consider updated operating and restoration conditions for the working of the quarries. Similarly, updated conditions for all active quarries will need to be considered as part of the periodic review process under the 1995 Act.				
	…High quality stone suitable for building and/or roofing, particularly that which is scarce and may be required for future conservation work, should not be used for the production of aggregates where lower quality rock suitable for crushing would suffice.	✘	✘	✘	✘
3.14	MPAs, LPAs and minerals operators should consider carefully, in liaison with Natural England and English Heritage, the potential for partial restoration of building stone quarries before the expiry of planning permission for extraction. This should be linked, where practicable, to new opportunities for archaeological, geological, wildlife and industrial heritage conservation and education, but retaining, where practicable, the potential for future access to supplies of small quantities of stone that may be needed at intervals in the future for repair of the historic built environment for which the site in question is an appropriate source.				
	Annex 4: On-shore oil and gas and underground storage of natural gas				
3.1	The industry should make available to MPAs information on the extent of known reserves of oil and gas, its forward plans and any potential sites for exploration, appraisal or production that it is considering and for which it holds exploration or production licences. However, MPAs should note that much of this information may be commercially sensitive.				
3.2	Conventional oil and gas development broadly consists of 3 phases- exploration, appraisal and production. RPBs should set clear guidance and criteria for location of Conventional oil and gas development (COG) development sites within the areas that are licensed for oil and gas exploration or production. MPAs should include policies in their LDDs that distinguish clearly between the three phases and should also identify any environmental and other constraints on production and processing sites, within areas that are licensed for oil and gas exploration or production, in those documents.				
3.4	<u>Seismic Investigations</u> Permitted Development Rights should not be withdrawn without very good reasons.				
3.5	In all cases the industry should fully discuss its proposals with the LPAs and statutory agencies. MPAs and highway authorities should be informed of the intended route for the survey, and prior notification given to residents on the immediate survey route. In two-tier planning areas, where county councils are the MPAs, operators should also ensure that district councils are aware of the intended investigations, and their commencement dates.				
3.7	<u>Drilling</u> Policies should be drafted to ensure that each application to explore will be considered on its own merits, in accordance with the present guidance, and in relation to LDDs and any other relevant material considerations. These considerations should not include any hypothetical				

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	future proposal for development of the oil or gas resource.				
3.8	In submitting an application for drilling, the developer should indicate what knowledge has been gained from seismic investigations in selecting the well site. Policies should indicate that, subject to the effects on the environment being appropriately addressed and mitigated, and a satisfactory restoration and aftercare plan prepared, applications for exploration may be favourably considered.				
3.9	Where environmental or other conditions might preclude vertical drilling, MPAs should discuss with the industry the option of employing directional drilling. LDD policies should make clear that this approach will be adopted and that careful consideration will be given to factors such as: • the need for night-time drilling for safety reasons; • locating sites to minimise visual intrusion; • controlling vehicular activity and vehicle routing; • controlling the disposal of mud and other drilling residue; and • controlling noise and light emissions from drilling rigs with particular reference to night-time operations.				
3.10	Section 106 agreements should not duplicate planning conditions or conditions attached to the award of a licence by DTI.				
3.11	Because of the intrusive nature of drilling operations, policies should provide that these will not be permitted close to houses and other noise-sensitive properties unless noise levels from drilling and associated operations can be reduced to acceptable levels.				
3.12	Particular care should be taken about siting all types of oil and gas wells close to water supply wells or boreholes.				
3.13	Appraisal As with all other forms of development, an application for an appraisal well must be considered on its merits. This consideration should take into account the long-term suitability of the site since such wells may subsequently be required for production purposes. The other factors listed above for exploration wells are equally relevant to appraisal wells. LDD policies should reflect this.				
3.14	Production and Distribution Gathering stations should not be sited where they would have unacceptable adverse environmental impacts.				
3.15	Pre-application discussions between the MPA and the industry on potential production proposals are essential. For the larger finds, it will be particularly important to establish how far the envisaged surface production facilities would be sufficient to handle the expected output from the find, or related finds as a whole.				
3.16	Policies should make clear that conditions are likely to be imposed governing, amongst other matters: • timing and method of gas flaring, (also controlled by DTI under the Energy Act 1976); • access; • the direction of vehicles leaving the site; • noise emissions; • prevention of pollution associated, for example, with possible spillages; • the means of disposal of unwanted gas; and • the method by which the end product is to be transported from the well site or gathering station.				
3.17	Operators should address all of these points in their planning applications and, where necessary and appropriate, in supporting environmental statements. Where possible, export terminals should be sited where they can feed into a long distance pipeline, or are				

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	connected to a railway or water transport, in preference to relying on road transport.				
3.18	Where pipelines are to be used for transporting extracted oil and gas it will be necessary for operators to obtain consent from the appropriate authorities (the relevant MPAs, the Environment Agency and the Health and Safety Executive) for routes, vehicle access, the location of machinery storage areas, and of pipes, pipelaying equipment and other construction materials. In drawing up proposals, operators should avoid environmentally sensitive locations and take account of any potential impacts on nature conservation, for example the movement of animals. Proposals should also take into account the possible implications for agricultural activities, consulting where necessary with associations that represent agricultural interests.				
3.19	For pipelines less than 10 miles in length, planning permission is required from the MPA. Longer pipelines require authorisation from the SSTI under the Pipelines Act 1962, although the usual planning and environmental considerations would be taken into account. The views of the LPAs, the Environment Agency, Natural England, the Health and Safety Executive, landowners and tenants should be sought. Also, a full environmental impact assessment statement would normally be required. On granting authorisation, the SSTI would then direct that planning permission for the pipeline shall be deemed to have been granted. In all cases, it is essential that land affected by pipeline development should be properly restored.				
3.21	Coalbed methane (CBM) MPAs should identify in their LDDs the extent of the coalfield with reserves at depths below the surface of between 200-1500m and of areas which are licensed for CBM by the Coal Authority. The LDDs should also list the principal constraints likely to affect any proposed production and processing sites within those areas.				
3.22	LDDs should make it clear that planning permission for exploration and appraisal does not carry with it any presumption that long-term production from those wells, or that the development of further wells, will be permitted.				
3.23	The main environmental impacts associated with CBM development are similar to those for COG. However, particular attention should also be given to the abstraction of any groundwater and its impacts, as well as the disposal of water produced during well stimulation and production of gas. The Environment Agency must be consulted and the relevant permission(s) obtained before any disposal or abstraction takes place.				
3.24	Accordingly, LDD policies should indicate that: • where initial proposals are environmentally acceptable and accord with the principles of sustainable development, planning permission might be granted for the initial hub of exploration wells, subject to their removal and restoration, if gas is not found in commercially viable quantities (or they are not needed to keep pumping water to protect production from an adjoining gas area); • this does not extend to the later approval of detailed schemes for production from those wells should the occasion arise; • options for the further development of the area should be presented for consideration in principle at the same time, to ensure that the immediate and potential longer-term environmental impacts of the development are understood by the MPA and that the applicant is aware of the risk of a subsequent refusal of planning permission; • further hubs of wells for the exploration, appraisal or later production phases will require separate applications and permissions on the same basis, supported where necessary by an environmental statement (or supplementary statement) related to the further development for which permission is sought; and • the industry should therefore discuss its proposals fully with the MPA well before a formal planning application is made, so that all the options and longer-term issues can be properly considered.				
3.25	MPAs in coalfield areas should, therefore, encourage capture and use by including appropriate policies in their development documents.				
3.27	Underground coal gasification DTI has examined the opportunities for UCG and its potential contribution to the future UK energy supply. If this source of energy is to be exploited then an experimental UCG development would need to be undertaken. If any such experiment were to be proposed in England, it would be subject to all the usual planning procedures including the Secretary of State's power to call-in applications for her own				

Paragraph	MPS1 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
	determination.				
3.28	Because of the absence, so far, of any UCG development in the UK, the technique is not referred to in the Schedules to the 1999 EIA Regulations or the accompanying Circular 02/99.3 However, if a MPA were to receive a pre-application enquiry regarding a UCG proposal it should pay close attention to the potential environmental impacts, both above and below ground, in considering whether an environmental impact assessment is required. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.				
4.4	Underground Storage of Natural Gas Therefore, county and district authorities in areas that have underground gas storage potential should discuss this issue and agree coherent policies for dealing with applications. When applications are submitted, these authorities should agree which are county council matters and which are not, depending on the circumstances of the application, including all the development that is proposed. Unitary and National Park authorities should also, where appropriate, develop planning policies for dealing with applications for underground gas storage.				
4.5	MPAs should consider whether there is a need for policies on underground gas storage in their LDDs on the basis of local geological circumstances. Where appropriate, MPAs and LPAs should collaborate in developing these policies, and areas where there might be potential for such storage should be indicated in their LDDs.				
4.6	MPAs should take account of matters concerning surface and underground development associated with gas storage that are material to the determination of the planning application				
4.7	General issues that should also be taken into account are: • that Government welcomes proposals to increase flexibility in the UK gas market, but is not prescriptive about how this is to be achieved. Proposals are a commercial matter for the market; • the national energy policy benefit of the proposal; • the likelihood that suitable onshore locations for gas storage will be very limited in number, due to the lack of suitable geographical features for underground gas storage, so that alternative possibilities may not be available; • the acceptability of proposals and measures to mitigate the potential environmental • impacts of exploration and development of the proposed facility, in terms of both the surface and subsurface works; and the integrity and safety of underground facilities especially in terms of maintenance of the pressure regime, the prevention of leakage of gas and the avoidance of pollution.				
4.8	It is likely that most applications for significant gas storage facilities will require environmental impact assessment. Applications and any accompanying environmental statements should include adequate information on the suitability of proposed sites for secure and safe containment of gas or the means of making them so, and the avoidance and control of pollution. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.				
4.9	Applicants should confirm with the MPA whether hazardous substances consent under the Planning (Hazardous Substances) Act 1990 is required. The Health and Safety Executive are statutory consultees in the process and would be consulted on whether there are safety grounds for refusal of applications.				

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND

Paragraph	MPS2 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
9	An environmental assessment of an extension or a modification to an existing site should concentrate on the effects of the proposed modification, and take into account operations on the existing site affected by the modification. The assessment should consider if the modification could lead to a level of environmental impact that would be unacceptable for the site as a whole, or if the proposed extension would bring the perimeter of the site closer to existing communities (thereby changing the nature or degree of the impact on existing communities)				
10	Policies and proposals in development plans have a key part to play in meeting the Government's objectives of ensuring that development and growth are sustainable. They should have regard to Planning Policy Statement 1 (PPS1): Delivering Sustainable Development (2005) and Minerals Planning Guidance Note 1 (MPG1): General Considerations and the Development Plan System (1996) (currently under review) which provide advice on planning policy for Local Planning Authorities (LPAs), MPAs and the minerals industry. When, as expected, MPG1 is replaced by Minerals Policy Statement 1 (MPS1), similar regard should be given to this successor document.	✓	✓	✓	✓
11	Development plan policies and proposals for minerals extraction and associated development should take into account: • the impacts of mineral working, such as visual intrusion, dewatering, water pollution, noise, dust and fine particulates, blasting and traffic; • the impacts on landscape, agricultural land, soil resources, ecology and wildlife, including severance of landscape and habitat loss, and impacts on sites of nature conservation, archaeological and cultural heritage value; • the benefits such as providing an adequate supply of minerals to the economy and hence for society (including construction materials needed for the development of national infrastructure and the creation of sustainable communities), creating job opportunities, and the scope for landscape, biodiversity and amenity improvements through mineral working and subsequent restoration; and • the methods of control through planning conditions or agreements to ensure that impacts are kept to an acceptable minimum.	✓	✓	✓	✓
12	Policies and proposals should take into account the level of existing activity and impacts, the duration and nature of proposals for new or further working, and the extent of impacts which a particular site, locality, community, environment or wider area of mineral working can reasonably be expected to tolerate over a particular or proposed period. With respect to an individual site, the effect of all relevant impacts (i.e. of noise, dust, traffic, on landscape etc.) should be considered objectively. Impacts that are acceptable individually should not be regarded as unacceptable in combination without a proper assessment. MPAs should also have regard where relevant to cumulative impacts of simultaneous and/or successive working of a number of sites in a wider area of commercially-viable deposits. These may affect communities and localities over an extended period, depending on the nature, age and size of the site(s) (see paragraphs 24–29).	✓	✘	✓	✓
13	Other development plan policies should ensure that development other than mineral extraction does not encroach on existing mineral operations, thus subjecting that development to a level of environmental impact that may be unacceptable and leading to complaints about the adequacy of planning conditions for the mineral operation concerned.				
14	Before applications are submitted to an MPA for determination, developers should discuss their proposals with the relevant local authorities and any other organisations whose interests may be affected by the proposed development. They should consult the Environment Agency and/or the local authority as regulator in respect of any pollution control requirements. Issues such as noise, traffic, dust, blasting, drainage, access arrangements, working methods, pollution control, landscape, restoration, after-use and stability should be discussed with the appropriate bodies prior to making an application. Developers should consult the Environment Agency to evaluate the hydrological, chemical and ecological impact of any workings on groundwater and surface water supplies.				
	MPAs and developers and their advisers should have regard to the general advice on the use of planning conditions in DOE Circular 11/95 The Use of Conditions in Planning Permission, the advice on planning conditions specific to mineral permissions in Minerals Planning Guidance Note 2 (MPG2): Applications, Permissions and Conditions (1998) and the advice on planning obligations in DETR Circular 01/97 Planning Obligations and any subsequent advice that may be issued which updates and revises these documents.				
	MPAs should ensure planning conditions are enforceable. They must be precise, capable of being monitored (infringements must be detectable), defined sufficiently for breaches to be provable, necessary, relevant to planning and to the development, and reasonable. The two principal types are:				

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	• performance requirements; and • the use of specific ameliorative measures.				
21	Performance Requirements Effective planning requires judgements based upon local circumstances and local objectives. MPAs should set out measurable performance requirements, such as noise or vibration limits, that make clear to operators what is expected of them so they can make their own decisions on the most cost effective way of meeting those criteria, while allowing outcomes to be monitored. MPAs should not specify methods for securing compliance that could inadvertently and unreasonably prejudice the flexibility of the operator's working methods and profitability. Performance requirements should usually be designed to: • achieve a minimum environmental quality; • limit degradation of the environment; and • encourage improvement.	✘	✘	✘	✘
	MPAs should also have regard to the possibility in some situations of requiring the operator to provide accessible monitoring systems, and making audited reporting by the operator (e.g. under an EMS), a condition of the permission. Where appropriate, MPAs and operators should seek to reach planning agreements with owners of sensitive properties to ensure access for monitoring purposes.				
	Amelioration Measures These should be specified as planning conditions to mitigate adverse effects where there is difficulty in defining a performance criterion which can be readily monitored and enforced.				
	MPAs should ensure that the adverse effects of mineral working on neighbouring communities are minimised.				
	Residents living close to mineral workings may be exposed to a number of environmental effects. MPAs must take particular care in respect of any conditions they attach to a grant of permission for working in proximity to communities…Dialogue should take place between MPAs, EHAs, operators and other stakeholders, especially in the local community, to determine appropriate mitigating measures, where these are feasible and would, if applied, allow the development to proceed.				
	The programme of work and/or the location of plant within the mineral working should take account of the proximity to occupied properties, as well as legitimate operational considerations. A programme of work should be agreed which takes account, as far as is practicable, of the potential impacts on the local community over the expected duration of operations.				
	In such cases, MPAs should consider the need to require adequate separation distances. MPAs should require a distance that is effective but reasonable, taking into account: • the nature of the mineral extraction activity (including its duration); • the need to avoid undue sterilisation of mineral resources, location and topography; • the characteristics of the various environmental effects likely to arise; and the various amelioration measures that can be applied. Working in proximity to residential property may be necessary where there are clear, specific achievable objectives such as the removal of instability and preparing land for subsequent development. Such working should be for a limited and specified period, without scope for extension.				
	In these circumstances, the MPA should consider both the need for long-term planning to avoid unnecessary sterilisation of resources, and how the combined impacts at individual sites and the cumulative impacts of further working of the mineral in a particular area can be reconciled with the need to protect localities and communities from unacceptable consequences of that working (e.g. by the number and timing of permissions, the phasing of workings and restoration, and the attachment of conditions to mitigate impacts).				
	Meanwhile the First Secretary of State looks to all LPAs and to mineral operators to follow the policies it sets out. They should ensure that the environmental impacts of mineral workings are minimised and controlled, and foster good community relations between mineral				

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	developers and operators and those living close to mineral workings.				
	MPS2: Annex 1: Dust				
	In formulating plans for mineral extraction or related activity and appraising mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused. The Government looks to the minerals industry to keep dust emissions at a level that reflects high environmental standards and to work for continuous improvement based on best available techniques (BAT).				
	Planning conditions on dust should not duplicate controls placed on the developer under the relevant pollution control regime				
	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action, and MPAs should take due account of this in their decisions on individual applications. MPAs and operators should liaise with the relevant pollution control bodies (i.e. the Environment Agency and Local Authority (LA) Environmental Health Departments) in considering and making decisions on individual applications.				
	The key planning principle is that dust emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should include appropriate proposals for the control and/or mitigation of dust emissions. Those making development proposals should carry out an appropriate dust assessment study (see Appendix 1C), and MPAs should consider the results of such a study to: • establish baseline conditions of the existing dust climate around the site of the proposed operations; • identify site activities that could lead to dust emission without mitigation; • identify site parameters which may increase potential impacts from dust; • recommend mitigation measures, including modification of site design; and • make proposals to monitor and report dust emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.				
	For the meantime, LAs should use the objective to assist in their longer-term planning.				
	When PM10 impact is found to be significant in planning terms but, on balance, does not merit refusal of an application, procedures to monitor and control PM10 should be adopted.				
	Because the activities identified are common to all mineral sites, the Government considers that the research recommendations should be extended to cover all types of mineral workings. In doing so, it recognises that the research was specific to opencast coal sites, which involve significantly more earthmoving than most other mineral workings. The materials excavated also vary with the mineral being worked. In addition, certain quarry processes are controlled under Part I of the EPA 1990 (see Secretary of State's Guidance – Quarry Processes PG3/8/96, DOE 1996) and now, by the PPC Regulations, and it would be for the pollution control system to control dust emissions from these. These factors need to be incorporated into the assessment of potential impact from PM10.				
	The potential impacts of opencast and other mineral activities on particular sites should be highlighted at the scoping stage of a planning application (see Appendix 1C). This should identify any special requirements for the environmental impact assessment (EIA). The likely number and frequency of predicted exceedences of the AQOs, together with the proximity of operations to residential property and other sensitive uses should constitute a major part of the EIA and the weight this should be given in balancing the benefits of the site against potential impacts. The Arup research (see paragraph 1.2) defined 'remote' as more than 1000m from any residential property or sensitive use (see Table 1A2 in Appendix 1A). The Newcastle research also identifies 1000m as an adequate cut-off point for considering whether additional measures to control PM10 should apply. In deciding a cut-off point for individual proposals, MPAs should also consider whether the topography, the nature of the landscape, the respective location of the site and the nearest residential property or other sensitive use in relation to the prevailing wind direction and visibility may justify the distance being tailored to local circumstances, and hence whether a greater or lesser distance may be justified.				

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	If within a site the actual source of emission (e.g. the haul roads, crushers, stockpiles etc.) is within 1000m of any residential property or other sensitive use, then a further assessment should examine the likely impacts and the weight they should be given in the decision making process.				
	Previously-measured data should be used in the first instance. Where relevant data is not available, site-related monitoring may occasionally need to be undertaken. The length of monitoring period, the methodology, the number of observations and different weather conditions should be carefully considered (see paragraph 1.9: detailed guidance on monitoring is provided in the LA's Technical Guidance on Review and Assessment (LAQM.TG(03)).				
	MPAs should set out in their local or minerals development documents (or in their mineral plans where these are still in preparation) their policies on dust from surface mineral operations. Plans and policies should contain guidance on those considerations related to dust emissions and control that will be taken into account in assessing planning applications, whilst recognising the range of control and mitigation measures available, including those under Part I of the EPA 1990. They should outline the criteria against which they will assess the environmental acceptability of the expected dust emissions from a proposed surface mineral operation or review the conditions on existing planning permissions. Other mineral policies relevant to the general mitigation of environmental effects and good practices are also likely to be relevant to the control and mitigation of dust including those relating to separation distances, landscaping and screening.	✘	✘	✘	✓
	When considering applications for new mineral development or reviewing conditions on existing permissions, MPAs should have regard to the environmental acceptability of the likely dust emissions, including the cumulative impact at residential properties and on other sensitive uses. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development, together with proposals for appropriate control or mitigation.				
	The control and mitigation of dust (as with other environmental impacts) should be discussed between the mineral operator and the MPA and the LA Environmental Health Department before an application is submitted. This will ensure that all parties are fully aware of all the issues and avoid delays in processing the application.				
	MPAs and mineral operators should ensure appropriate consultations and effective liaison with all stakeholders, including statutory consultees and the local communities potentially affected by dust emissions. In particular, they should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned, as the regulator for quarry processes under the EPA 1990.				
	MPAs should assess the findings from a dust assessment study carried out by the applicant (see Appendix 1C) when determining planning applications or when considering conditions to attach to planning permissions. Pre-planning discussions should have addressed the principal matters relating to the design and layout of the site and these should be reflected in the plans and details of workings.				
	MPAs should consult the EHO for the area on the effects of dust emissions and the adequacy of proposed control and mitigation measures. Where the effects of dust emissions cannot be adequately controlled or mitigated, permission should be refused. MPAs should confirm the residential properties and other sensitive uses that might be affected and the effects of the proposals on them. MPAs should consider the need for, timing, length and frequency of temporary, dusty activities that are outside normal operations, but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.				
	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way as to minimise dust emissions at the source and thereby to control them to acceptable levels. Planning conditions should not duplicate or conflict with any requirements imposed on quarry processes under Part I of the EPA 1990. MPAs should seek to identify the most appropriate control measures to address specific potential dust problems, and attach planning conditions to consents which are precise and unambiguous. The wording of the condition should make it clear as to when and where the control, or mitigation of dust, is necessary. Conditions should be worded in such a way that contraventions are easy to identify and enforcement action can be readily undertaken if necessary.				
	Planning conditions that seek to mitigate dust through the use of water bowsers or sprays are frequently used by LAs, especially with regard to haul roads. Wherever possible, they should be specific about where and when water bowsers or sprays should be used. The condition could also specify that a chemical dust suppressant or a wetting agent be added to improve dust control. These sorts of condition require liaison with the relevant statutory consultee, in this case the Environment Agency.				
	The Government looks to the minerals industries to keep dust emissions at a level that reflects the highest environmental standards, to work for continuous improvement based on BATs and to reflect the principles set out in this Annex in framing proposals for new development and in reviews of conditions. It expects MPAs to have regard to the principles of this Annex in considering the impacts of dust on the environment				

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	and the local community in the Minerals Local Plan (and in future local and minerals development frameworks), and in determining applications and reviewing conditions on existing permissions.				
	MPS2: Annex 2: Noise				
2.1	In formulating plans for mineral extraction or related activity and designing mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused.	✘	✘	✓	✓
2.2	The Government looks to the minerals industry to keep noise emissions to a level that reflects the highest environmental standards and to work for continuous improvement. Its policy is to secure reduced noise emissions in both urban and non-urban areas and at noise-sensitive areas and properties…MPAs and others concerned with mineral development should have regard to the national noise strategy, on which the Department for the Environment, Food and Rural Affairs (Defra) consulted in 2001. This aims to map the main sources and areas of noise in order to identify tranquil areas that are to form a national resource, to comply with EC Directive (2002/49/EC) Assessment and Management of Environmental Noise.				
2.3	Most noise from mineral operations is created by equipment used for extraction and processing. MPAs and mineral operators should have regard to EC Directives 98/37/EC ('The Machinery Safety Directive') and 86/662/EC (Limitation of Noise Emitted by Hydraulic Excavators, Rope-operated Excavators, Dozers, Loaders and Excavator-loaders), which seek to reduce noise emissions from mobile plant and dump trucks. These do not apply to plant with a power rating in excess of 500kW or to a fixed plant. A proposed Directive (Noise Emission in the Environment for Equipment for Use Out of Doors), which is likely to come into force in 2005, indicates a further reduction in noise emissions for a range of tracked and wheeled plant. MPAs should be aware of the need to take account of this Directive when considering new applications and reviewing existing permissions after its implementation date. The Government will consider the need for appropriate supplementary guidance on this in due course.				
2.4	Planning conditions on noise should not duplicate controls placed on the developer under the relevant pollution control regime				
2.6	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action and except that MPAs will take due account of this in their decisions on individual applications.				
2.7	The key planning principle is that noise emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should, therefore include appropriate proposals for the control or mitigation of noise emissions. Those making development proposals and planning authorities considering such proposals should, therefore: consider the main characteristics of the production process and its environs, including the location of noise-sensitive properties; make and consider proposals to minimise, mitigate or remove noise emissions at the source using best available techniques (BAT) in accordance with the European Commission's BAT Reference Documents, taking account of the control of some quarry processes under the PPC egulations; assess the existing noise climate around the site of the proposed operations, including background noise levels at nearby noise-sensitive properties; estimate the likely future noise from the development and its impact on the neighbourhood of the proposed operations; monitor noise emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.				
2.9	Emissions assessments should identify all sources of noise and, for each source, consider the proposed operating locations, procedures, schedules and duration of work for the life of the operation. They should consider what emissions are likely to arise and indicate how and where efforts have been made to control, mitigate or remove these at source. The level and character of the existing noise environment and the location of noise-sensitive properties will enable the necessary noise level goals to be incorporated in the design of proposed operations. Monitoring is required to compare changes in noise level and character caused by the operation to the design goals and to manage them in order to achieve those goals. There must be effective liaison with the affected community, and complaints should be dealt with promptly.				
2.10	MPAs should set out in their local development documents, policies on noise from surface mineral operations. They should outline the criteria against which they will assess the environmental acceptability of the expected noise emissions from a proposed surface mineral operation, or in reviewing the conditions on existing planning permissions. They should set out the noise limits they will apply in principle and any flexibility entailed in their application. The minerals (or successor) plan should also indicate the extent of technical information required in support of an application.	✘	✘	✘	✓

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2.11	In identifying areas of search and/or proposed sites for mineral working, MPAs should take account of any information on the existing local noise climate, particularly in areas of tranquillity that should be preserved as part of the national resource. For existing mineral operations, whether or not currently subject to conditions relating to noise, MPAs should consider whether the introduction of buffer zones to separate the mineral operation from existing and possible future noise-sensitive development could be helpful.				
2.12	When considering applications for new development or reviewing conditions on existing planning permissions, MPAs should have regard to the environmental acceptability of the likely noise emissions, including the cumulative impact at noise-sensitive properties. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development together with proposals for appropriate control or mitigation.				
2.13	Discussions on the issues relating to noise (and other environmental impacts) should take place between the mineral operator and the MPA and the local authority (LA) environmental health department before an application is submitted. Developers should also consult the Environment Agency or the LA as the regulator under the PPC Regulations.				
2.14	MPAs should ensure that operators are aware of the need for and provide all the required technical information. They should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned alongside their own expert advisers. MPAs and operators should ensure that there are appropriate consultations and effective liaison with the community likely to be affected by noise emissions.				
2.15	Where an EIA is required (DETR Circular 02/99 Environmental Impact Assessment), it should identify the actual working noise emissions from all equipment to be used on site, having regard to established good practice. It should establish the threshold at which significant effects from noise emissions will be likely in or near environmentally-sensitive locations, and demonstrate that emissions can be successfully maintained below this threshold. Sensitive locations include sites carrying national and international environmental designations. The significance of effects from noise should be considered in the context of existing development. The additional impacts of site-attributable noise emissions at noise-sensitive properties should be established.				
2.16	When considering applications, MPAs should ensure that operators have provided the required technical information and considered all reasonable options to minimise noise at source. In the light of the existing noise climate of the locality, they should consider the cumulative effects of noise emissions. MPAs should consult the EHO, as the pollution control regulator for the area, and other relevant stakeholders (e.g. English Nature for sites designated for nature conservation value) on the effects of noise emissions, and the adequacy of proposed control or mitigation measures. Where the effects of noise emissions cannot be adequately controlled or mitigated, permission should be refused.				
2.17	When considering granting permission, MPAs should establish what noise-reduction practices will be used and what their effects will be. They should identify all noise-sensitive properties that might be affected and what the effects of the proposals will be on them. MPAs should consider the need for, timing, length and frequency of temporary noisy activities that are outside normal operations but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.				
2.18	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way that noise emissions are minimised at the source and thereby controlled to acceptable levels.				
2.19	Planning conditions should be used to apply absolute controls on noise emissions with limits normally being set at particular noise-sensitive properties (the terms used are defined in Appendix 2A). This enables the effect of noise to be related most directly to its impact on local people. In some circumstances, however, it might be more appropriate to set the limits at the site boundary or some other point. Subject to a maximum of 55dB(A)LAeq,1h (free field), MPAs should aim to establish a noise limit at the noise-sensitive property that does not exceed the background level by more than 10dB(A). It is recognised, however, that this will in many circumstances, be difficult to achieve without imposing unreasonable burdens on the mineral operator. In such cases, the limit set should be as near that level as practicable during normal working hours (0700-1900) and should not exceed 55dB(A) LAeq,1h (free field). Evening (1900-2200) limits should not exceed background level by more than 10dB(A) and night-time limits should not exceed 42dB(A) LAeq,1h (free field) at noise-sensitive dwellings.Where tonal noise contributes significantly to the total site noise, it may be appropriate to set specific limits for this element. Peak or impulsive noise, which may include some reversing bleepers, may also require separate limits that are independent of background noise — e.g. Lmax in specific octave or third-octave bands — and should not be allowed to occur regularly at night.				
2.20	Increased temporary daytime noise limits of up to 70dB(A) LAeq1h (free field) for periods of up to 8 weeks in a year at specified noise-sensitive properties should be considered to facilitate essential site preparation and restoration work and construction of baffle mounds				

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	where it is clear that this will bring longer-term environmental benefits to the site or its environs. Where work is likely to take longer than 8 weeks, a lower limit over a longer period should be considered. In some wholly exceptional cases, where there is no viable alternative, a higher limit for a very limited period may be appropriate in order to attain the environmental benefits. Within this framework, the 70 dB(A) LAeq1h (free field) limit referred to above should be regarded as the normal maximum. LAs should look to operators to make every effort to deliver temporary works at a lower level of noise impact. Operators should seek ways of minimising noisier activities and the noise emissions from them when designing the layout and sequencing of temporary operations, and should liaise with local residents prior to such operations taking place.				
2.21	Conditions on planning permissions should identify the noise-sensitive properties at which the noise limits are set, including the relative sensitivity to noise, which may result in different limits for different types of property, and establish a scheme of monitoring that identifies how, where and when noise is to be measured, who should be responsible and how the results will be assessed and used. Alternatively, a condition should be attached requiring a scheme of compliance noise monitoring to be submitted to and approved by the MPA.Where necessary, the MPA should seek to use Agreements under Section 106 of the Town and Country Planning Act 1990, as amended, to ensure access to noise-sensitive sites for monitoring purposes. Conditions should also be used to secure effective procedures for dealing with complaints. Planning obligations can help to ensure continued effective liaison with the local community and others affected by noise emissions.				
2.22	Monitoring, in accordance with an agreed scheme, should normally be carried out in the free field at noise-sensitive properties and should pick up all noise from static and mobile sources that could affect the property. Where monitoring has to be conducted near the façade of a building, the microphone should be located 1m from the façade at a height of 1.2–1.5m above the ground and a 3dB façade reflection correction should be applied. If monitoring has to be other than at the noise-sensitive property, the noise limit must be converted into equivalent noise limits at the monitoring points using the noise-prediction technique in Part 1 of BS5228 Noise and Vibration Control on Construction and Open Sites (1997).				
2.23	Equipment used for monitoring should correspond to that specified in BS-EN 61672-1 Electroacoustics, Sound Level Meters, Specifications (2003), capable of measurement in LAeq,1h and be calibrated before and after use.Where it is not possible by use of the pause button to exclude extraneous noise not directly attributable to the operation being monitored, an appropriate allowance should be made. Guidance on this is contained in BS4142 Method of Rating Industrial Noise Affecting Mixed Residential and Industrial Areas (1997).				
2.24	Monitoring should be undertaken during normal production working hours and should avoid meal times and periods of plant maintenance or breakdown. Measurements should ideally be taken in calm conditions or where there is a component of wind blowing from the site towards the measurement location. However, at many sites, such conditions may be rare. BS4142 suggests that measurement should be avoided in conditions of wind speeds greater than 5m/sec, rain and temperatures less than 3°C. BS4142 also requires that a record be kept of weather conditions prevailing during all measurements. Where noise monitoring is undertaken when weather conditions are not ideal and noise levels appear to be of concern, the impact of weather conditions on ambient noise should be considered as well as noise propagation from the site.				
2.25	The detailed requirements for monitoring (location, period and frequency) should be decided on a site-specific basis as part of the monitoring scheme, taking account of any monitoring required under the terms of any authorisation for quarry processes under the PPC Regulations. Unnecessarily onerous requirements should be avoided. Conditions should require operators to report periodically to the MPA on the results of monitoring and to inform it as soon as possible if there is evidence of the limits being breached, including an explanation and a statement of action to remedy it. MPAs and/or EHOs should carry out periodic checks of permitted sites in their areas, particularly if complaints are received, and inform the operator and complainants of the results. If monitoring demonstrates that noise limits continue to be exceeded,MPAs should consider what enforcement action would be appropriate.				
2.26	The Government looks to the minerals industries to keep noise emissions at or below the levels set out in this Annex, and to use BAT to reduce the impact of noise from their operations. It expects MPAs to have regard to the principles of this Annex in considering the impacts of noise on the environment and the local community in the minerals and waste development plans, the development documents that will succeed these and in determining applications and reviewing conditions on existing permissions.				

MPG3: COAL MINING AND COLLIERY SPOIL DISPOSAL

Paragraph	MPG3 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
8	National Land Use Policy Considerations In applying the principles of sustainable development to coal extraction, whether opencast or deep-mine, and to colliery spoil disposal, the Government believes there should normally be a presumption against development unless the proposal would meet the following tests: i. Is the proposal environmentally acceptable, or can it be made so by planning conditions or obligations? ii. If not, does it provide local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission? iii. In National Parks and AONBs, proposals must also meet the additional tests set out in paragraphs 28 and 29 below. iv. Proposals within or likely to affect and National Nature Reserves (NNRs) must meet the additional tests set out in paragraphs 30 and 31. v. Proposals within the Green Belt must meet the additional test in paragraph 36 below. MPAs should ensure that this general approach is incorporated into their development plan policies as soon as possible. The Government recognises that the costs and benefits of an opencast proposal can best be assessed by the communities and local authorities who know the area best and are most directly affected. Accordingly the Government takes the view that, subject always to local plan procedures, normal rights of appeal and the provisions of this guidance, MPAs' assessments of the environmental acceptability or otherwise of individual proposals should normally prevail.				
11	Formulation of Policies and Plans Within the overall framework set out in paragraph 8 above, policies and proposals in the development plan should be consistent with national policies and strategic and regional planning guidance.				
12	Policies and proposals should take into account the principal impacts of coal working and spoil disposal, both separately and together, such as visual intrusion, water pollution, air pollution, noise, dust and traffic and the level of activity that a particular locality and its community can reasonably be expected to tolerate over a particular period, as well as the potential benefits such as job opportunities and the scope for landscape and amenity improvements through working and subsequent restoration. Equally, other development plan policies should ensure that provision for other development does not unnecessarily sterilise coal resources, nor allow development to encroach on existing mineral operations and thus increase the level of environmental impact to an unacceptable level.				
13	The Coal Authority and MPAs should liaise closely at an early stage of the development and mineral planning process. The Coal Authority should also be approached by MPAs in the consideration of individual planning applications…Coal operators should engage in full and open dialogue with MPAs and provide them with information on the extent of their known reserves and forward plans. MPAs should provide operators with information on the planning and environmental constraints within the authority area…For existing deep and drift mines consented under the Town and Country Planning (General Permitted Development) Order 1995 ("the GPDO") operators should also supply information on their forward mining plans in accordance with the DTI Code of Practice.				
14	Scope for Environmental Improvements Policies should give priority to proposals which will bring about environmental improvements.				
15	Safeguarding of existing businesses and opportunities for future investment Policies should be explicit that where there is material evidence that coal extraction and related development would have an adverse effect on efforts to attract or retain investment in an area, this is a material consideration which should be taken into account in deciding planning applications.				
16	Policies should make provision for proposals where extraction of coal from a site would facilitate the efficient and economic working of other mineral deposits on that site in an environmentally acceptable way…opencast sites provide one of the few viable sources of fireclay and every opportunity to produce it from a proposed site should be examined provided that the site can be properly restored and the overall proposal meets the tests in paragraph 8.				

Paragraph	MPG3 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
17	Comprehensive working Where a forward programme of potential sites has been agreed in line with paragraph 13, policies should provide for proposals which would facilitate the comprehensive working of the coal deposits in a locality, subject to planning and environmental constraints and the acceptability of individual proposals in accordance with paragraph 8.				
18	Cumulative Impact Some areas have been subjected to successive opencast developments over a number of years. Policies should make clear that, where appropriate, the cumulative impact of a proposed opencast development on the community and the environment will be taken into account.				
19	Extension to sites Developers should provide the MPA with as much information as they have available on the extent of the resources in a proposed site, and the way in which they propose to work them, before or at the time a planning application is made to avoid subsequent unplanned applications for site extensions in area or depth… Policies should therefore make clear that any proposal to extend an opencast site, in area or depth, will have to meet the criteria in paragraph 8. Where the proposal is likely to have significant effects on the environment an Environmental Impact Assessment should be required.				
20	Repeat applications Section 70A of the 1990 Act (as inserted by section 17 of the 1991 Act) provides that an MPA may decline to determine a planning application if it is made within two years of the Secretary of State refusing a similar application, either on call-in or appeal, and there has been no material change in circumstances since that decision. In addition there should be a general presumption against approving applications for development of a site, or extensions to an existing site, where a similar application has been refused previously unless there has been a material change in circumstances since that decision.				
21	Commencement and completion of development Policies should make clear that, if planning permission is granted, conditions will be imposed specifying the date by which development must be begun (or the planning permission will lapse) and dates for the completion of coal extraction, restoration and aftercare.				
22	Sterilisation In principle, it is desirable to secure coal extraction prior to new permanent development above coal reserves. Policies should therefore take into account the benefit of avoiding sterilisation of coal reserves by other forms of development, within a reasonable timescale and in an environmentally acceptable way, provided the proposal can meet the tests in paragraph 8 above.				
23	Deep mines and drift mines In general, proposals for drift mines raise similar issues to those for deep mines. The impact is largely determined by the size, location and duration of the operations. Policies should deal with the principal impacts arising from ancillary surface development at underground mines, for example: visual intrusion, noise, dust, traffic, the location and design of buildings and storage areas, coal washing and lagoons, and site restoration; and with the potential effects of subsidence, including the potential hazard of old mine workings, the treatment and pumping of underground water, monitoring and preventive measures for potential gas emissions; and the method of disposal of colliery spoil.				
24	Colliery spoil ..continuity of production at existing deep and drift mines in part depends upon the availability of land for spoil disposal. Plans should therefore set out policies which make provision for this.				
25	Policies should include consideration of viable alternatives to local tipping where that is precluded by environmental constraints or where there is a reasonable expectation that environmental gains will outweigh any increased costs, and should encourage use of the evaluative framework ("Procedural Manual Evaluative Framework: Assessment of Alternative Colliery Spoil Disposal Options" HMSO 1990).				
26	The coal industry should make every effort to keep spoil production to a minimum and to seek ways of reducing the environmental impact of its disposal, including flexibility in local arrangements for disposal; continued efforts to improve restoration techniques; and, by seeking opportunities for the recycling of spoil for use as secondary aggregates (see Annex A). It should supply current and projected spoil production figures to the MPA at an early stage so that a forward strategy on spoil disposal can be compiled for the whole area, and should				

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	cooperate in the discussion and preparation of forward programmes.				
27	Nationally designated and other sensitive areas Development plans should also contain policies, where relevant, for the protection of National Parks, AONBs, SSSIs, NNRs, ancient monuments, archaeological and other cultural interests, agricultural land and Green Belt. Advice on the national policies that apply is set out below.				
28	PPG7 - "The Countryside - Environmental Quality and Economic and Social Development" (February 1997) sets out in detail Government planning policies for all forms of development in National Parks and AONBs. The Government considers that major developments should not take place in these areas, and the New Forest and the Norfolk and Suffolk Broads, save in exceptional circumstances. Because of the serious impact that minerals developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all minerals development should be demonstrated to be in the public interest before being allowed to proceed.				
29	National Parks and AONBs Consideration of minerals applications in such areas should normally include an assessment of: i. the need for the development, in terms of national considerations of mineral supply; ii. the impact of permitting the development, or refusing it, on the local economy; iii. whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iv. any detrimental effect of the proposals on the environment and landscape and the extent to which that should be moderated; and iv. in the case of extensions to existing mines, the extent to which the proposal would achieve an enhancement to the local landscape.				
30	SSSIs and NNRs Mineral proposals within or likely to affect SSSIs should be the subject of the most rigorous examination. When considering such proposals planning authorities are required to consult EN on such proposals and should take account of the advice in PPG9 - "Nature Conservation".				
32	Other environmentally important areas Planning authorities may designate other environmentally significant areas in their development plans, such as special landscape areas, or areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not be as high as that to be given to the nationally designated areas referred to above.				
33	The historic environment …The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features. When determining applications for extraction, MPAs should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings.				
34	…The protection of the historic environment, whether individual listed buildings, conservation areas or the wider historic landscape will need to be taken fully into account both in the formulation of authorities' planning policies and in development control.				
35	Agricultural land The Government's policy, as set out in PPG7, is that within the principles of sustainable development, the best and most versatile agricultural land (defined as land in Grades 1, 2 and 3a) is a national resource for the future, and considerable weight should be attached to the protection of such land because of its special importance when considering the allocation of land for minerals development, and deciding any application for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects……where the best and most versatile agricultural land is involved the restoration and aftercare steps should enable the retention of its longer term potential as a high quality agricultural resource.				
36	Green Belt Proposals for coal extraction and spoil disposal may also arise within Green Belts. The Government's policy is set out in Planning Policy				

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	Guidance 2: Green Belts (PPG2). Applications to extract coal or deposit spoil in the Green Belt should be tested against the highest environmental standards. If permission is granted, stringent conditions should be attached to ensure the site is well operated and restored to the highest standards.				
37	Mineral Local Plans and Part 2 of UDPs Structure Plans and Part 1 of UDPs should set out strategic policies. Mineral Local Plans and Part 2 of UDPs should carry forward those policies and set out clear criteria against which individual proposals will be assessed. These criteria should include consideration of: - • the effects on local amenity; landscape; features of archaeological, architectural, historic or natural interest; and, agriculture; • the effect on hydrology or hydrogeology; • the environmental impacts of transportation of minerals and waste; • the cumulative impact on communities in the locality of proposals; • the effect on efforts to attract or retain investment in the area; • any environmental improvements or other material planning benefits to the community likely to result from the proposals; • the employment and other economic effects of the proposals; • the avoidance of sterilisation of mineral resources; • the efficient and economic working of other mineral deposits in an environmentally acceptable way; • the avoidance of unplanned piecemeal working of deposits; and, • where development is acceptable in principle, the range of conditions likely to be needed to mitigate or control any potential adverse effects. MPAs may also wish to have regard to the Countryside Commissions' advice on landscape and countryside issues set out in their publication "Opencast coal mining: advice on landscape and countryside issues" (CCP434, 1993) and to English Heritage/Countryside Commission/English Nature's published guidance "Conservation Issues in Strategic Plans" and "Conservation Issues in Local Plans".				
38	Minerals Local Plans and Part 2 of UDPs should also indicate any areas where coal extraction and the disposal of colliery spoil may be acceptable in principle subject to development control criteria being met in any particular case, as well as those areas where working or disposal is unlikely to be acceptable or where coal resources are to be safeguarded for future working…				
39	Handling Specific Development Proposals Proposals for coal extraction and spoil disposal can give rise to considerable concern because of the potential environmental impact operations can have on a locality. Operators and MPAs should therefore have regard to the code of practice prepared jointly by the then County Planning Officers' Society and COALPRO ("Planning for Quality - A Code of Practice", September 1996).				
40	Before applications are submitted to the MPA for determination, and as early as possible, operators should explain fully the nature of their proposals, indicating the ways in which they intend to deal with the environmental factors that will arise…Technical issues such as drainage, access arrangements, working methods, pollution control, restoration, after-use and stability should also have been discussed with the appropriate bodies.				
41	There is a statutory duty to consult with and obtain approval from the Environment Agency with regard to the siting and condition of any spoil disposal to land.				
42	In all cases the MPA will need information about likely environmental effects as part of the material accompanying an application for planning permission. Operators should seek the MPA's views on the preparation of Environmental Statements (ES) appropriate to the scale of the proposal and the sensitivity of its location.				
43	Environmental Impact Assessment … Where proposals for mineral development are likely to have significant effects on the environment, applications will need to be subject to EIA under the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999 and an				

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	Environmental Statement (ES) prepared.				
44	…In any event, mineral applications in National Parks and AONBs should be subject to the most rigorous examination and EIA should always be required. Similar considerations apply to proposals which would affect SSSIs or other areas which have been designated nationally or internationally as requiring special consideration.				
45	Environmental duty In addition to any requirement for EIA, section 53 of the Coal Industry Act 1994 imposes an environmental duty on the coal industry. In formulating coal mining proposals requiring planning permission, operators are required to have regard to the desirability of the preservation of natural beauty, the conservation of flora and fauna and geological or physiographical features of special interest and the protection of sites, buildings, structures and objects of architectural, historic or archaeological interest; and, must formulate proposals for the adoption of measures to mitigate any adverse effect of the development on such matters. In considering coal mining proposals, MPAs must have regard to the extent to which the operator has complied with the duty.				
47	Post application consultations Following receipt of a planning application for coal extraction or spoil disposal, the MPA should undertake the consultations specified in the Town and Country Planning (General Development Procedure) Order 1995 ("the GDPO"). In addition, they should also consult MAFF where there is likely to be an agricultural afteruse. The Forestry Commission should be consulted where areas of forest are likely to be affected by the development or where forestry planting forms part of a reclamation scheme. The Countryside Commission should be invited to comment on any application which has a major impact on the landscape, Regional Parks, Country Parks, National Trails and Community Forests. MPAs should consider the likely effect on a National Nature Reserve, SSSI, or other area of ecological, geological or geomorphological importance, of any planning application at or in the vicinity of such a site, so as to decide whether or not to consult English Nature (EN). MPAs should bear in mind the possibility that certain developments may affect a site some distance away. Sites and Monuments Records (SMRs) should be consulted where proposals affect features of archaeological interest or the built heritage. SMRs will involve English Heritage as appropriate. English Heritage needs to be consulted directly on proposals which would affect Scheduled Monuments and grade I and II listed buildings.				
49	Consideration of applications MPAs will need to consider in detail the full range of social, community, economic and environmental issues that are relevant to the planning decision. For its part, the industry should demonstrate that it has addressed all potential adverse effects either by amending the proposals, or providing appropriate compensatory or mitigation measures when preparing planning applications. The industry should demonstrate that its proposals take all practicable steps to satisfy the environmental concerns on site operation and restoration. The objective must be to ensure that any adverse effects on local communities, environmental damage or loss of amenity caused by mineral working are kept to an acceptable level, and do not outweigh the benefits to the local community of proceeding with the development. Where material planning objections to a proposal outweigh any benefits to the local community then, as stated in paragraph 8(ii) above, planning permission should not normally be granted.				
50	Need and alternative sites or sources of supply Where the major argument advanced in support of an application to extract coal is that the need for the development outweighs the planning disadvantages inherent in it, the MPA should have regard to the possibility of meeting that need from alternative sites or sources of supply.				
51	Applicants should include a description of the main alternatives considered in their Environmental Statement.				
53	Consideration of impacts and conditions …In the meantime, the industry and MPAs should adopt the precautionary principle and ensure that proposals and developments do not result in unacceptable levels of airborne dust. Where planning permission is granted stringent conditions should be attached to control and monitor dust emissions. Further advice will be issued once the results of the research are known.				
54	… Meanwhile, and in any event, where planning permission for coal extraction or the disposal of colliery spoil is granted, the Secretary of State expects MPAs to impose planning conditions requiring the highest standards of operation, restoration and aftercare to ensure that any impacts on the environment or local amenity are minimised, and to ensure that compliance with those conditions is monitored and enforced.				

Paragraph	MPG3 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
	In that connection the industry can play its part by initiating annual independent environmental audits of operating sites and making the results freely available to the MPA, members of the public and other interested persons, either independently or as part of an individual company's accreditation under an environmental performance or monitoring system such as EMAS or ISO 14001…				
55	Planning Obligations … Where the environmental impacts of coal extraction or colliery spoil cannot be sufficiently mitigated, or controlled, by means of planning conditions alone, it may be appropriate for MPAs to seek planning obligations to ameliorate the harm or to secure relevant and legitimate local benefits which outweigh that harm, in line with paragraph 8 above. Community benefits, for instance, in the form of new community facilities or community trust funds may be proposed by the developer or suggested by the planning authority. However, any such benefits offered or sought should not be treated as material considerations unless they meet the tests set out in DOE Circular 1/97 - ie: i. they are necessary to make a proposal acceptable in land use planning terms; ii. they are relevant to planning; iii. they are directly related to the proposed development; iv. they are fairly and reasonably related in scale and kind to the proposed development; v. they are reasonable in all other respects.				
56	Restoration and aftercare Applications for extraction of coal or disposal of colliery spoil should include information which demonstrates that the site can be restored satisfactorily. The omission of such information is likely to delay determination of the application. If proposals for restoration are inadequate, unsatisfactory or impracticable, planning permission should not be granted. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.				
57	Proposals for restoration and aftercare of coal extraction and spoil disposal sites should form an important part of the information submitted with a planning application and in earlier informal discussions. This information should be sufficiently detailed for a realistic view to be taken of the after-use intended, including phasing of progressive restoration and the final landform and landscape intended. This should normally be agreed with the MPA in advance of planning permission being granted, after discussions with the district council, site operator, land owners, farming, local community and other relevant local interest groups (eg nature conservation).				
58	Aftercare proposals should also take account of the need to manage on-site and off-site drainage, and any creation of water features, including any advice from the Environment Agency who should be consulted, particularly when preparing any restoration and aftercare scheme where it is intended to impound or create an impoundment of water or create or divert a river or stream.				
59	At the time planning permission is granted, both the principles and, as far as possible, the details of restoration should be agreed - although in some cases it may be sensible for some details to be agreed at a later stage. The intended after-use must also be decided when planning permission is granted, but in the case of longer term sites the detailed aftercare programme may more appropriately be settled in a scheme agreed subsequently. Further advice is given in MPG7.				
60	In the cases where agriculture is the intended after-use, it is essential that site working, restoration and after-use should be considered thoroughly at the outset, and in full consultation with MAFF, environmental and other interests as appropriate. In cases where forestry is the intended after-use, consultations on its appropriateness and on aftercare requirements should be with the Forestry Commission.				
64	However, where the operator can demonstrate to the satisfaction of the MPA that they are covered by an established and properly funded industry guarantee scheme, which would adequately finance a programme of restoration and aftercare in the case of default by the operator, the Government considers that a bond should not be necessary.				
65	… In all cases, operators should ensure that sufficient finance is available to enable them to meet fully restoration and aftercare conditions. Equally, MPAs should have regard at all times to the need to avoid imposing costs on coal operators that are larger or longer than strictly required to meet best standards. In those cases where security funding or bonds are required, the sums should be released progressively as restoration proceeds.				

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66	Liaison Committees Should permission be granted, particularly for major developments, developers should aim to set up a liaison committee or advisory panel consisting of representatives of the developer, the contractor working the site, local authorities and members of the local community and other interested bodies (including EN where appropriate) to ensure that the local community has a full understanding of working practices and that the developer and contractor are fully aware of local community concerns.				
68	Nevertheless, the Government expects MPAs to determine applications expeditiously….Applicants should aim to provide authorities with all the information that is needed to determine the application, including in all normal cases an appropriate Environmental Statement covering all relevant issues. If the authority needs further information, every effort should be made to ensure that requests for its provision are comprehensive at the outset.				
Annex B	Planning and Pollution Control B3. Planning conditions should not seek to control through planning measures matters that are the proper concern of the pollution control authority, except where planning interests can be clearly distinguished. However, the winning and working of minerals is an operation which continues over a number of years and the "development" is not complete until the site has been worked out and restored. The MPA will therefore be concerned with the totality of the impact of the development on amenity and other land uses, whether or not part of the development is subject to pollution control. B4. Where processes prescribed for control under Part I of the Environmental Protection Act 1990 form part of the application for planning permission for coal extraction or colliery spoil disposal, material planning considerations may include the potential loss of amenity caused by pollution, and the MPA will need to take them into account in determining whether planning permission should be granted. MPAs should, where appropriate, impose planning conditions on any permission minimising such impacts. Such conditions must relate to land use planning considerations and may include conditions regulating such matters as noise, dust, hours of working etc where these are necessary to protect local amenity or other land uses. However, planning conditions should not duplicate pollution controls on prescribed processes. It is essential therefore that MPAs should consult the relevant pollution control authority at an early stage about the extent to which matters should be addressed through planning or pollution control mechanisms, and to provide the pollution control authority with an opportunity to comment on pollution control in respect of the development as a whole.				

MPG5: STABILITY IN SURFACE MINERAL WORKING AND TIPS

Paragraph	MPG5 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
	This guidance advises that: - mineral planning authorities need to consider stability in relation to surface mineral workings and tips; - local planning authorities need to consider stability in relation to development in, on or near abandoned surface mineral workings and tips; and that - policies should outline the consideration which will be given to stability issues in considering mineral development and other development in, on or near to mineral workings and tips; - consideration of apparently unrelated issues may require consideration of the potential effects on the stability of excavated or tipped slopes; - where appropriate, planning applications and restoration/landscaping schemes should be accompanied by a design report prepared by a competent person which demonstrates that the perimeter slopes and any internal slopes remaining after restoration will remain stable.				
16	Development Plans When preparing minerals local plans, MPAs will need to consider the extent to which specific policies should be included to cover tip- and quarry-slope stability or whether this issue should be covered by supplementary guidance. This consideration should take account of the factors which might trigger particular concerns about stability, such as proximity to built development or infrastructure; knowledge of previous instability problems; the criteria to be used to define stand-off distances or clearances between quarry slopes or tips and the site boundary or third-party structures; and the requirement for final slopes and restoration to be compatible with stable slopes…	✘	✘	✘	✘
17	In addition, policies in district-wide local plans should seek to ensure that land use is appropriate when considering development above or below abandoned quarry slopes and on or near to disused tips or back-filled workings. In particular, attention should be given to the possible need for stand-offs to protect neighbouring land or structures and/or for slope stabilisation measures. Where development is being proposed on back-filled workings, consideration will be needed of both the planning and Building Regulations requirements in respect of stability, as well as of the possibility of contamination arising imported waste…Any development planning briefs prepared for such sites should ensure that the issues of slope stability, differential settlement of quarry backfill and the likelihood of contamination and migration of contamination from the site are properly addressed.				
20	Applications for Mineral Workings and Review of Old Mineral Permissions Landscaping and restoration proposals should be consistent with the production and maintenance of safe and stable slopes.				
22	While the internal working slopes of quarries and tips are principally matters of concern to the operator and the HSE rather than for the MPA, the final perimeter slopes and restoration proposals have land-use implications, which need to be considered by the MPA. In order to do so it will need to be provided by the operator with an assessment and design of perimeter slopes and any internal slopes remaining after restoration to enable any potential for adverse effects due to instability to be minimised.				
24	Applications for new workings should be accompanied by an appraisal of slope stability issues based on existing information, which aims to: • identify any potential hazard to people and property and assess its significance; • establish the basis for reserve calculation; • identify any features which could adversely affect the stability of the working to enable basic quarry design to be undertaken.				
25	Where built development is the proposed after-use for back-filled workings, MPAs should impose conditions to secure appropriate deposition and compaction to allow that development to proceed without the need for further ground treatment.				
26	Applications for Development on or Near Abandoned Tips or Quarries Appraisals and assessments of excavated and tip slope stability should be carried out for the operator by a competent person, as defined in the Quarries Regulations 1999. The MPA is entitled to rely on such appraisals and assessments in considering the impact of stability on land use. The MPA should ensure that any changes to the applicants proposed method of working, which may be desirable for other reasons, are appraised and assessed by that competent person.				

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27	Conclusions Where development is proposed in or near the slopes of abandoned quarries or tips, local planning authorities should seek information from applicants in respect of stability reports prepared by a competent person. The layout of such development will need to be considered in relation to the stability of nearby slopes and the necessity for and feasibility of any necessary stabilisation measures. Development on back-filled workings and tips will also need to consider the potential effects of differential consolidation of the fill/tip material as well as any potential effects on slope stability. The detailed resolution in terms of specific foundation measures or ground treatment is, however, a matter for the building regulations.				

MPG7: THE RECLAMATION OF MINERAL WORKINGS

Paragraph	MPG7 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
8	Reclamation Policies in Development Plans Structure plans and Part 1 of UDPs should express in general terms the MPAs strategy for mineral working and related development taking into account national and regional policies. They should provide policy guidance to applicants including in general terms the need for restoration and aftercare of mineral workings.	✓	✓	✓	✓
9	Minerals local plans (or minerals and waste local plans), district-wide local plans of the new unitary authorities (where authorised to include minerals and waste policies), and Part II of the UDP's provide an opportunity for local authorities to develop in detail the policies and plans for their area. They should provide policy guidance to applicants on appropriate uses of land within the plan areas. This should assist in the early identification of the most appropriate after-use for a mineral site.	✓	✘	✓	✘
10	When drawing up their plans, local authorities should have regard to Government policies on land use.				
13	National Land Use Policies and Reclamation of Mineral Sites Agriculture: Where minerals underlie the best and most versatile agricultural land it is particularly important that restoration and aftercare preserve the long-term potential of the land as a national, high quality, agricultural resource.	✓	✘	✘	✘
14	Government policy seeks also to encourage the diversification of the rural economy where this will not result in the significant loss of high quality agricultural land. Therefore whilst agriculture remains the most appropriate after-use for many mineral sites, other uses such as forestry and some forms of amenity including nature conservation (e.g. heathland or unimproved grassland), should also be considered on land which was originally in agricultural use. Where these alternatives are proposed on the best and most versatile agricultural land, the methods used in restoration and aftercare should enable the land to retain its longer-term capability to be farmed to its land classification potential, thus remaining a high quality agricultural resource for the future…	✘	✘	✓	✘
15	Reclamation to non-agricultural uses does not mean that there can be any lessened commitment to high standards in the reclamation and recycling of land taken for mineral working, and they therefore should not be chosen because they are perceived as `easier options'. They require equal commitment by mineral operators, mineral planning authorities and any other parties involved to achieve high standards of implementation.				
18	Forestry Therefore, in the areas of the "Community Forests", the National Forest, and in preferred areas as identified in IFSs, structure plans and minerals local plans should give consideration to inclusion of policies for the after-use of mineral sites to forestry and amenity woodland.	✓	✘	✘	✘
20	Landfilling of Surface Mineral Workings Unitary planning authorities should include waste policies in their unitary development plans.				
21	Waste local plans therefore need to take account of minerals local plans.				
22	Imposing Reclamation Conditions for New Permissions General Considerations In granting planning permission for mineral working, MPAs should always carefully consider the applicant's proposals for reclamation of the site, how and whether the proposals are likely to achieve the intended results and, therefore, how requirements to ensure satisfactory reclamation can be incorporated into appropriate planning conditions. It is equally important that the applicant should thoroughly understand, and make financial provision for, the responsibilities he will be taking on under the reclamation conditions likely to be imposed on a planning permission.				
24	Planning conditions for reclamation should normally be framed with the intended after-use in mind. However, separate planning permission is likely to be required for any after-use except:				

Paragraph	MPG7 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
	i. agriculture and forestry (excluded from the definition of development in section 55 of the 1990 Act), ii. uses which are included in the Town and Country Planning (General Permitted Development) Order 1995, and iii. nature conservation and informal recreation which do not involve substantial public use. Any application for development on a current or disused mineral working site which would conflict with or prejudice compliance with a restoration and aftercare condition imposed in respect of the mineral working will be dealt with by the MPA.				
25	Pre-Application Considerations The drawing up of practical proposals for site reclamation will require a careful site investigation by the potential mineral operator prior to the submission of an application. The outcome of the investigation should be reflected in the documentation submitted with the application.				
26	It is in the applicants interest to discuss working and reclamation proposals and possible planning conditions with the MPA, prior to formal submission of an application. These discussions should also involve the statutory consultees, the landowner, tenant and any other person with a relevant interest.				
27	To demonstrate that a site can be reclaimed to an acceptable standard and after-use, the applicant is advised to prepare, at the outset, a working plan which includes restoration proposals and is based upon findings from the site investigation. This should be in sufficient detail for the MPA and any statutory consultees to form a judgement as to its feasibility.				
28	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, they will need to be subject to an assessment of those effects under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988.				
29	Whether or not a formal environmental assessment is required, operators are advised to follow the general methodologies for the assessment of environmental effects in all applications. These provide the applicant with the opportunity to demonstrate, and the MPA to evaluate, for example, the practicality of the proposed after-use(s). Where there is doubt as to the practicality of proposals, the operator should discuss alternative solutions using the available information.				
30	Submission and Determination of Planning Applications Having received an application for planning permission, it is necessary for the MPA to notify or consult other interested parties before reaching a decision…MPAs are not required to consult external experts for advice on amenity use; but they may do so in appropriate cases.				
31	Policies and guidance in Minerals Local Plans, Part II of UDPs and other local plans should assist in these considerations.				
32	MPAs should thus have regard to the practicality of the proposal before them. The possibility that reclamation techniques may have improved in the intervening time must also be borne in mind.				
33	Drawing up Reclamation Conditions Where a permission is granted, therefore, the conditions should be drafted in such a way that, even if the interest of the mineral operator applying for permission is subsequently disposed of, the requirements for reclamation can still be fulfilled, whether by a new operator or in the case of default, by the land-owner. The general principle is that a MPA should take into account whether it is feasible to implement the applicant's reclamation proposals successfully.				
34	Planning conditions for reclamation should be specific to the proposed site and should normally be framed with the intended after-use in mind.				
35	Where possible, it is normally desirable to have 'progressive' or 'rolling' reclamation to minimise the area of land occupied at any one time by the mineral working, unless to do so would be likely to affect adversely the standard of reclamation achieved, or would be impractical having regard to the type of operation and nature of the site. Conditions for progressive reclamation normally limit the area taken for mineral working at any one time and relate it to the rate of restoration of earlier phases of the operation. It is, however, important that conditions permit a sufficient area of land to be stripped of soils in advance of mineral extraction to allow for wet years when soil stripping operations may be impracticable. It is not advisable to specify actual dates in conditions for phasing unless there are overriding reasons to do so.	✓	✘	✘	✓

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36	For short-term workings it is usually appropriate to impose a detailed set of conditions at the time of granting planning permission. For longer-term workings, early agreement on the details of at least the later stages of reclamation may not be appropriate.				
37	For longer-term workings, it is also appropriate to agree at the outset outlines of requirements covering the main stages (e.g. filling, restoration and aftercare), together with detailed schemes for stripping and storage of soil materials. This must be sufficient to clearly demonstrate that the overall objectives of the scheme are practically achievable. Such workings should then normally require the submission of a detailed scheme or schemes for restoration and aftercare, for agreement, by some specific stage towards the end of the life of the permission. Sites where progressive reclamation is to be carried out can require submission of schemes for agreement from time to time as appropriate.				
38	Soil Handling and Storage For after-uses requiring the growth of vegetation, effective reclamation will depend on the appropriate identification and management of soil resources prior to and during work as well as in the later stages of restoration and aftercare. Soil resources in this context are taken to include any medium which is not contaminated and which has a realisable potential to permit plant root growth and to retain and provide water and nutrients. Planning conditions will normally prevent soil resources from being exported from the site. In addition they will usually require the separate stripping, storage (where necessary) and respreading in correct sequence of defined thicknesses of topsoil, subsoil, or any other soil-making materials. Some sites may contain considerable variations of soils within them, such as major textural differences, and it may be desirable to require separate stripping (and storage and restoration) of these materials. Such soil variations should have been identified in pre-application site surveys and provided for in the reclamation plan.	✓	✘	✘	✓
40	Landform and Landscape In preparing a planning application for either a new site or any significant extension to an existing working, the applicant/operator should develop a site-specific landscape strategy, which includes: i. defining the key landscape opportunities and constraints; ii. considering potential directions of working, significant waste material locations, degrees of visual exposure etc; iii. identifying the need for additional screening during operations; iv. identifying proposed after-uses and preferred character for the restored landscape.				
42	Landscape and reclamation plans should address the impacts which mineral extraction can have on the existing landscape. These will include the working face and operations at the face, locations of waste tips, and haul roads.				
43	The intended final landform, gradients and drainage of a site should be designed and specified at the outset, with controls in planning conditions as appropriate. For many sites there may need to be some flexibility, and a continuation of the iterative design process, to take account of changes necessitated by operational, geological and mineral working safety demands. However, major planned final landform elements are not easily adjusted when extraction is almost complete, and modifications should not compromise the overall environmental acceptability of the scheme.				
44	Wherever possible and safe to do so the natural gradients and rock features of the surrounding landscape should be imitated when forming new screening banks, soil storage bunds and final faces.				
50	Backfilling or Infilling with Mine and Quarry Wastes Filling of a mineral void with these materials will be controlled by planning conditions. The conditions will need to address both the manner and sequence of filling the excavation and specify, usually by appropriate reference to plans and cross sections, the intended gradients, landform and contours of the final surface. Allowance should be made for predicted final settlement. Mine and quarry wastes are not controlled wastes as defined under the Environmental Protection Act 1990 (the EPA 1990).				
51	Infilling with Controlled Wastes However, the choice to integrate the two activities should be a deliberate and conscious one, which takes account of the joint impact of the extraction and landfill on the site and surrounding area.				

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55	Restoration Restoration conditions also need to cover remedial treatment of soil so as to facilitate the use of cultivation, harvesting and drainage equipment for the aftercare period and the longer-term management of the land.				
59	Aftercare Consultations and Responsibilities Before imposing an aftercare condition, the MPAs are required to consult the appropriate Agriculture Minister (through the regional Land Use Planning Units of MAFF) where they propose that the land should be used for agriculture, and to consult the Forestry Commission where they propose that it should be used for forestry.				
61	Provided the necessary information has been submitted by the operator (see Boxes 5 and 6 in Annex A) then the consultations required for successful aftercare to take place should not be allowed to lead to undue delay in the grant of planning permission or the completion of an agreement on the aftercare condition or scheme.				
62	Form of Aftercare Conditions An aftercare scheme will usually be appropriate with a long-term permission where restoration and aftercare may not be begun for a number of years. It should provide a flexible framework for a successful programme of aftercare. There may, however, be cases where it would be appropriate to specify aftercare steps in the aftercare condition itself - e.g. where mineral working will be short-term and the aftercare relatively straightforward, or for the first phase where progressive restoration and aftercare are to be carried out relatively quickly.				
70	Financial Responsibility for Aftercare It is important that the likely aftercare requirements are made clear at the outset so that operators are aware of the cost implications involved, and can make provisions for them.				
74	Aftercare and Agricultural Set-Aside Before seeking to set land aside farmers and landowners are therefore advised to ensure that they are capable of meeting both aftercare planning requirements and AAPS management rules. Where this cannot be achieved land should not be set aside.				
75	Planning Obligations However, planning obligations which are sought should fairly and reasonably relate in scale and kind to the proposed development.				
82	New or Improved Reclamation Conditions for Existing Permissions and Workings, Including Interim Development Orders and Old Mineral Permissions The new schemes should include provisions for landform, restoration and aftercare of sites to a suitable after-use. Where a site is already subject to satisfactory conditions providing for restoration and aftercare there should be no need to alter them. In all other cases, appropriate restoration and, where relevant, aftercare conditions should be imposed and provision should be made for reclamation to an appropriate after-use as soon as practicable.				
86	Financial Provision for Reclamation It is Government policy that properly worded and relevant planning conditions which are complied with and, where necessary, enforced, should be able to secure the restoration, aftercare and after-use of mineral sites. No payment of money or other consideration can be required when granting a planning permission except where there is specific statutory authority…Financial guarantees to ensure the reclamation of mineral sites should therefore not normally be required, and policies in development plans should not state that a local authority will require or seek bonds other financial guarantees to underpin planning conditions.				
91	Responsibility for the restoration and aftercare of mineral sites lies with the operator and, in the case of default, with the landowner. Applicants should, therefore, demonstrate with their applications what the likely financial and material budgets for restoration, aftercare and after-use will be, and how they propose to make provision for such work during the operational life of the site. This is important to avoid future dereliction and the possibility that the costs of reclamation of mineral sites might have to be borne by other public or private sources.				
93	Any demonstration by an operator of how they intend to make financial provision for restoration, aftercare and after-use should relate to the development proposed. MPAs should not seek a demonstration or provision of unlimited cover for unspecified future liabilities or for matters where normal planning mechanisms would apply. In particular MPAs should not seek financial guarantees from applicants, prior to the grant				

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	of planning permission, to deal with possible future breaches of planning controls that can be dealt with through existing planning enforcement powers and procedures.				
94	There may remain exceptional cases where it will be reasonable for an MPA to seek a financial guarantee to cover restoration (including aftercare) costs, through a voluntary agreement/planning obligation at the time a planning permission is given. Examples of such situations may be: i. for very long-term new projects where progressive reclamation is not practicable, such as a super-quarry or some types of industrial or metalliferous mineral sites, where incremental payments into a secure fund may be made as the site develops; ii. where a novel approach or technique is to be used, but the MPA considers it is justifiable to give permission for the development; iii. where there is reliable evidence of the likelihood of either financial or technical failure, but these concerns are not such as to justify refusal of permission. However, it is the Government's view that where an operator is contributing to an established mutual funding scheme, such as the SAGA Restoration Guarantee Fund, it should not be necessary for an MPA to seek a guarantee against possible financial failure, even in such exceptional circumstances.				
95	There are some other circumstances where a financial guarantee might be appropriate as part of a planning obligation, including where the mineral developer contributes funding towards management of the new after-use of the land which needs to last beyond the formal aftercare period.				
96	It is important that where MPAs may seek specific financial guarantees for site reclamation, this does not unfairly discriminate against smaller operators. Therefore, all planning controls must be applied on an even-handed basis, regardless of the size of the operator.				
97	Monitoring and Enforcement of Restoration, Aftercare and Related Site Operations The objective should be for all relevant parties to have in place adequate systems, including quality controls and staff with appropriate training and skills, to achieve their parts in securing successful site reclamation in the most cost-effective manner.				
98	Mineral operators should ensure that good records of all relevant planning documents, and of operations carried out, are kept at each site; and similar information should be held by the MPA.				
99	It is recommended that mineral operators provide MPAs with an annual report on each of their sites, which indicates how they have monitored and complied with specific planning conditions. For new sites such a requirement could be included as a planning condition, providing that the actual conditions to be monitored and reported on are sufficiently precise and identified. However, monitoring reports should not be seen as an alternative to proper and objective monitoring of compliance by the MPA.				
100	MPAs should also have a planned series of visits to sites to check on key activities at the right times, such as in advance of soil stripping and stages of restoration, in addition to routine monitoring and recording of progress.				

MPG10: PROVISION OF RAW MATERIAL FOR THE CEMENT INDUSTRY

Paragraph	MPG10 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
4	Introduction The Government places great importance on reducing the level of imports of building and construction material, and wishes to encourage domestic production to counter the rising import trend and to provide employment. The Government would also not wish to discourage any export opportunities that might arise. The Government therefore looks to mineral planning authorities to make provision for adequate supplies of raw material for the industry as it endeavours to meet future domestic demand.			✘	✘
	It is important that short term gains should not be achieved by creating environmental debts for future generations. The encouragement of cement production must therefore be balanced against important environmental and conservation interests. The industry are asked to draw up schemes for new quarrying in consultation with the minerals planning authorities which reflect these environmental considerations. Key features of these schemes will be proposals for the working arrangements and the restoration and after-use of both existing operations and new sites.				
26	Development Plans Development plans provide an opportunity for considering the various options for the future location of mineral workings, identifying preferred locations and the safeguarding of mineral resources for future working. Structure plans should identify areas for mineral development in broad terms. Mineral local plans should identify are as in more detail using Ordnance Survey-based maps.			✓	✓
27	Development plans should also set out the environmental criteria against which planning applications will be assessed, and policies for the working, reclamation and after-use of mineral working sites. They should also carry forward national policies for landscape and historic or nature conservation and for agriculture which may constrain the choice of sites for mineral working.			✓	✓
28	In cement-producing areas, development plans should try to assess the likely raw material needs of the industry and having examined the various options which are available identify preferred areas of working which will meet these needs. The forecast of possible future demand for minerals used in the production of cement at annex B should inform the assessment of likely needs. Mineral planning authorities should discuss the choice of sites with the cement industry when formulating these plans. The choice of sites must take into account national policies on landscape and historic or nature conservation and on agricultural land. The plans should also safeguard mineral resources for future working. The plans should set out the development control criteria which new planning applications for mineral extraction must satisfy. They should also set out policies and proposals for the working, landscaping, reclamation and after-use of mineral sites.			✓	✘
31	Supply Policies for the release of land for mineral working and cement production should therefore balance the need for the development, environmental, social, agricultural and other relevant considerations.			✓	✘
34	Location of Plant and Production Capacity It follows from this that, in order to maintain and in some cases increase production at existing plants, it will be necessary for the cement makers and the mineral planning authorities to identify areas of working and to safeguard resources reasonably near existing plants, after taking account of all environmental criteria. Proposals will also need to be drawn up for the working, landscaping, restoration and after-use of quarries and plant sites.			✓	✘
36	Wharves For their part, planning authorities should make every effort to identify and safeguard suitable locations for wharves in their development plans.			✘	✓
38	Safeguarding As mineral resources are finite, local planning authorities should make every effort to safeguard in their development plans, and through development control, those deposits which are of economic importance against other types of development which would be a serious hindrance to their extraction. It will usually be necessary to consider need over a much longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the time scales of the proposed mineral working in order to keep blight to a minimum. Where it is possible to extract minerals prior to other			✓	✓

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	more permanent forms of development this should be encouraged unless there are good planning reasons for not doing so.				
39	National Parks The Government's policy on the treatment of applications for mineral extraction in the National Parks is set out in MPG1. Applications must be considered on their merits, but because of the serious impact which mineral working may have on the natural beauty of the Parks, minerals applications in these areas "must be subject to the most rigorous examination". Extraction should be demonstrated to be in the public interest, and consideration of such applications should therefore normally include an assessment of: i. the need for the development, including the extraction of the mineral in terms of national considerations and the impact of permitting or refusing it upon the local economy; ii. the availability and cost of alternative sources of supply; iii. any detrimental effect on the environment and the landscape and the extent to which that could and should be moderated; iv. whether in the light of this assessment the proposed development would be justified in the public interest. (Hansard, House of Commons 9 April 1987 columns-393-394).				
40	Areas of Outstanding Natural Beauty AONBs are designated under the National Parks and Access to the Countryside Act 1949 for the purpose of preserving and enhancing their natural beauty and, as is the case with National Parks, they may also contain valuable chalk and limestone deposits. The Government's policy on AONBs (Hansard, House of Commons 29 July 1982 Cols 707-10) also requires that minerals applications in these areas "should be subject to the most rigorous examination".			✘	✓
41	National Nature Reserves and Sites of Special Scientific Interest DOE Circular 27/87 (WO 52/87) emphasises that in determining planning applications and drawing up development plan policies planning authorities should take full account of nature conservation factors particularly in areas designated as National Nature Reserves or Sites of Special Scientific Interest for their flora, fauna or geological or physiographic features. It specifies that mineral applications in these areas should be subject to the most rigorous examination. English Nature should be consulted on such applications in England and in Wales consultation should take place with the Countryside Council for Wales. It is recognised that there may sometimes have been cases where mineral workings have been beneficial in the establishment of new wildlife habitats and in the exposure of important geological features.			✘	✘
42	Other Environmentally Important Areas Planning authorities may designate in their development plans other environmentally significant areas, such as special landscape areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not normally be as high as that given to the statutorily designated areas referred to above.			✘	✓
43	Ancient Monuments and Archaeological and Other Cultural Interests Mineral working may damage or destroy irreplaceable sites, structures and remains of historic archaeological interest that are of importance to the national heritage. The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features, and mineral planning authorities should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings when determining applications for extraction. Planning Policy Guidance Note 16: Archaeology and Planning (PPG16), and the CBI Code of Practice for Minerals Operators, underline the importance of identifying as early as possible the likely presence and importance of any archaeological sites liable to be affected by the proposed development. In England this should involve early consultation with the County Archaeological Officer or equivalent (listed in PPG16) and in Wales with the regional archaeological trust. Where remains are scheduled (under the provisions of the Ancient Monuments and Archaeological Areas Act 1979), the Secretary of State for the Environment's consent is needed before works may proceed. Where buildings are listed, listed building consent is required before they may be altered or demolished.			✘	✓
44	Agricultural Land Applications for minerals extraction from land used for agriculture are subject to policies set out in DOE Circular 16/87 (WO 25/87). The Government's overall policy is that when considering the allocation of land for development and in deciding applications for planning			✘	✓

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	permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects. The Circular also recognises that minerals have to be worked where they occur and that mineral workings provide valuable raw materials for industry and can contribute to the rural economy. These factors, and the feasibility of a high standard of restoration, therefore need to be considered in deciding planning applications for mineral working affecting agricultural land. Where minerals underlie good quality agricultural land, the Circular advises that the best and most versatile land is a national resource for the longer term and should in general be protected from irreversible development.				
45	Green Belt Proposals for mineral working also arise within Green Belts. The government's policy is set out in Planning Policy Guidance Note 2: Green Belts (PPG2). This states that the extraction of minerals need not be incompatible with Green Belt objectives provided that high environmental standards for working and landscaping are maintained and that the site is well restored to an appropriate use.			✘	✘
47	Local Environmental Effects MPAs should have regard to all material considerations when determining applications, including these guidelines and relevant policies in development plans. They will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the cement industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them. The industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns of neighbouring sites with regard to site operation and restoration. The objective must be to ensure that any environmental damage or loss of amenity caused by mineral working is kept to an acceptable level.			✓	✓
48	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, the projects concerned will need to be subject to environmental assessment (EA) under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988… … It is therefore the industry's intention to continue its practice of submitting statements, covering all relevant issues, in support of planning applications. The Government welcomes this.				
53	Transport The policy implications for the planning system are that cement plants generate significant amounts of road traffic and that the scope for transferring this to the railways is currently limited. MPAs should pay particular consideration to traffic routing when determining new planning applications. The industry should keep under review the options for using rail transport and use it in preference to road transport wherever it is cost effective to do so taking account of the possibility of obtaining grants under Section 8 of the Railways Act 1974 for the construction of rail facilities.			✓	✓
54	Water Interests There is a substantial body of legislation in relation to water supply, pollution and land drainage. Mineral planning authorities and the industry should take into account the need to protect the flow and quality of water supplies in accordance with British and European Community legislation and the need to ensure that changes in the water table as a result of minerals extraction do not cause environmental damage. The National Rivers Authority should be consulted about all new mineral development proposals.			✘	✓
55	Air Pollution Cement production can generate significant air pollution. Under the Environmental Protection Act 1990 the manufacturer of cement or clinker must be authorised by HMIP for integrated pollution control. The operator must demonstrate the use of the best practical environmental option (BPEO). The bulk handling of cement other than at the point of production requires authorization from the local authority. The Secretary of State is issuing guidance notes to be used by both HMIP and Local Authorities to assist in achieving the objectives set down in the Environmental Protection Act 1990.			✘	✓
57	Landbanks Mineral planning authorities should therefore maintain landbanks of permitted reserves of raw materials for cement plants, providing that the industry come forward with sufficient environmentally acceptable proposals. These landbanks should include the industry's primary materials			✘	✘

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	(chalk and limestone) and also secondary materials (clay and shale). There should be a landbank calculated for each site.				
58	The size of the cement industry's landbank should be directly linked to the scale of capital investment envisaged at a site, for an important feature of the industry is the high cost of investment and the long amortisation periods this entails. Mineral planning authorities should normally aim to maintain cement plant with a stock of permitted reserves of at least 15 years. Where significant new investment (such as a new kiln) is agreed with the mineral planning authority, the plant should be provided with a stock of permitted reserves to provide for at least 25 years. New plant on a greenfield site should be provided with a stock of permitted reserves lasting more than 25 years.			✘	✘
59	Development plans should normally allocate sufficient land for mineral extraction for cement manufacture to provide for the maintenance of landbanks. Structure plans should set out the general principle of maintaining a landbank for cement plant, and mineral local plans should seek to identify areas where minerals will be worked. Sufficient land should be allocated to maintain this landbank throughout, and at the end of, the plan period.			✓	✘
60	It should be noted that the general commitment to maintain a landbank does not remove a mineral planning authority's or the Secretary of State's discretion to refuse planning permission for an application should there be overriding environmental objections. Planning applications may also be refused within areas allocated in development plans if the actual development proposal is judged to be unacceptable on environmental grounds.				
61	In most parts of the country, mineral planning authority boundaries should constitute a suitable basis on which to base a landbank policy, but mineral planning authorities may choose to adopt either a sub-regional or a sub-county approach as appropriate. Whatever area is chosen for landbank purposes, it is essential that production and reserve data should be available and the industry and mineral planning authorities should work together to facilitate this.				
63	The Government takes the view that it is in the national interest to maintain and increase cement production, and to increase the scope for competition. Sufficient reserves of minerals should be permitted for this. More permitted reserves are particularly needed where the size of the landbank is below the levels recommended in para 58 above. The cement makers and the mineral planning authorities should examine the feasibility of bringing forward planning proposals for new raw material reserves at the best balance of economic, environmental and social cost. In undertaking this the planning authorities may wish to have regard to the forecast at Annex B of the long term future demand for cement minerals.				
64	Working Practices, Restoration, Aftercare and After-use The Government looks to the cement industry to adopt working practices in their mineral extraction operations which will cause the least adverse environmental impact and to endeavour to be a good neighbour. The Government has commissioned research into the environmental effects of surface mineral working and this will provide the basis for further advice on good environmental practice for the minerals industry generally. The Government will expect the cement industry to take account of such guidance in operating its present sites and in any future operations.				
65	It is established Government policy that restoration and, usually, aftercare will be required to make mineral workings fit for beneficial after-use and environmentally acceptable. This may include restoration to agriculture, forestry, management for nature conservation, provision of public open space, recreation or other development……Wherever practicable, mineral planning authorities and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved…				
66	Reinstatement of sites to an appropriate after-use should be an integral part of the planning of raw material supplies for the cement industry. One of the distinguishing features of the industry is the scale and duration of its mineral extraction operations, which can transform the local landscape. For each operational site the industry should therefore draw up a quarry plan, where such a plan is not already in existence, in consultation with the mineral planning authority, for the screening and phasing of working, restoration and aftercare, and the longer term after-use and changes to the landscape. As recognized in MPG7, whilst final site reclamation and possible after-uses must be considered at the time of a planning application and appropriate provision made in the conditions, it is likely that most such schemes prepared before extraction commences will require updating and amendment during the lifetime of a working. Planning conditions may allow for this by requiring a general treatment scheme to be prepared and agreed before extraction starts, to be followed up by submission of detailed schemes for particular phases as they are completed and by setting a time limit for submission of the final reclamation plan which is commensurate with the duration of the mineral permission.				

Paragraph	MPG10 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
67	Restoration of mineral sites may involve infilling all or part of the site with waste material. Where wastes other than those generated through the extraction process are being brought onto the site, the nature of the wastes to be used and the method of working need careful attention at the planning application stage and in obtaining an appropriate licence from the waste disposal authority. The Environmental Protection Act will require authorities to be satisfied that there are no hazards or difficulties arising from the landfill before they can provide a Certificate of Completion. This could involve particularly lengthy periods (20-30 years) but, if landfill gas from any site (eg clay extraction and backfill) could be utilised as a fuel for any adjoining cement plant, the resulting integrated scheme of extraction and use might optimise use of materials and restoration of land. Where the quarry plan envisages an afteruse involving built development, restoration should entail using inert waste to avoid the dangers of methane generation.				
68	It will be important for MPAs and the industry to work together, using both statutory and voluntary procedures available, to achieve satisfactory solutions for these older operational sites. The aim should be to do this within 2 years of the publication of these guidelines.				
70	Speeding the Planning System The Government accepts that quarrying proposals are often complicated and can arouse local controversy, and it is important that all material considerations receive careful attention. Nevertheless, the Government expects mineral planning authorities to determine applications expeditiously. The industry itself can help to reduce possible delay by discussing its development proposals with the authority, the local community, relevant local bodies such as the County Wildlife Trusts and the appropriate statutory bodies at an early stage before planning applications are formally submitted. Applicants should aim to provide authorities with as much information as possible to help them determine the application. If the authority needs further information, every effort should be made to ensure such requests are comprehensive at the outset. Mineral Planning Guidance Note 2: "Applications, Permissions and Conditions" (MPG2) provides further guidance on the drawing up and determining of planning applications.				
72	Potential for waste disposal and energy conservation However, there needs to be careful control of the overall chemistry to ensure emission limits are not exceeded, and account has to be taken of the production capacities, product quality, energy consumption and capital investment for the safe and practicable burning of potential wastes. Kilns using waste would need appropriate planning and waste disposal licensing consents (these will become waste management licences with the implementation of the 1990 Environmental Protection Act). HMIP should be consulted about proposals for burning wastes.				
73	The industry should look for opportunities to dispose safely of waste in this manner.				
74	Industry will continue to look for other such opportunities.				
79	Implementation and Review These guidelines will provide the basic framework for the planning of raw material for cement. They will be taken into account by the Secretaries of State when considering development plans and individual planning applications which come before them for decision.				
80	MPAs should have regard to these guidelines in formulating development plans and when considering development proposals. Development plans should recognise the need to make provision for a continuing supply of raw material in the vicinity of existing plant in a manner compatible with other environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied. The mineral plans should also maintain a landbank of permissions compatible with these objectives.				
81	The cement industry has an important role to play in co-operating with, and contributing to, the development plan process. For example, the successful application of landbank policies depends upon the ready availability of information on reserves and production. The industry should endeavour to ensure that proposals for mineral development reflect these guidelines and come forward at the right time. The industry is also responsible for drawing up the quarry plans, in consultation with the mineral planning authorities, for achieving a high standard of operation while the site is being worked and for restoring the site when working has finished.				
82	These guidelines have been based on the best information currently available. They will need updating to reflect changes in demand, technology and environmental standards, but the policy of establishing landbanks will provide flexibility. The guidelines will be reviewed every four years.				

MPG13: GUIDELINES FOR PEAT PROVISION IN ENGLAND

Paragraph	MPG13 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
	The Government wishes to see indigenous mineral resources developed within its broad objectives of encouraging competition, promoting sustainable economic growth, assisting the creation and maintenance of employment, and protecting the environment. For the economic well being of the country, it is essential that there is an adequate and steady supply of minerals to meet the needs of the community and to foster economic growth. At the same time, the Government recognises that peat is ultimately a finite resource, and that its extraction can have a significant environmental impact (see the UK Strategy for Sustainable Development (Cm 2426 - January 1994)).				
	The implications of sustainable development for minerals planning in general are that avoidable and irretrievable losses of natural resources, such as minerals, should be limited. The objectives of sustainable development for minerals planning are: i) to conserve minerals as far as possible, while ensuring an adequate supply to meet the needs of society; ii) to minimise production of waste and to encourage efficient use of materials, including appropriate use of high quality materials, and recycling of wastes; iii) to encourage sensitive working practices during minerals extraction, and to preserve or enhance the overall quality of the environment once extraction has ceased; iv) to protect designated areas of critical landscape or nature quality from development, other than in exceptional circumstances where it has been demonstrated that development is in the public interest.				
	The Government's objectives for nature conservation are to ensure that its policies contribute to the conservation of the abundance and diversity of British wildlife and its habitats, or minimise the adverse effects on wildlife where conflict of interest is unavoidable, and to meet its international responsibilities and obligations for nature conservation.				
	An essential task for Government, local authorities, and all public agencies concerned with the use of land and natural resources is both to make adequate provision for development and economic growth and to ensure effective conservation of wildlife and natural features.				
	The Biodiversity Action Plan has set out underlying principles and objectives, to conserve and enhance biological diversity within the UK, and to contribute to the conservation of global biodiversity through all appropriate mechanisms. Objectives for conserving biodiversity are: i) To conserve and where practicable to enhance: a) the overall population and natural ranges of native species and the quality and range of wildlife habitats and ecosystems; b) internationally important and threatened species, habitats and ecosystems; c) species, habitats and natural and semi-natural habitats that are characteristic of local areas; d) the biodiversity of natural and semi-natural habitats where this has been diminished over recent past decades. ii) To increase public awareness of, and involvement in, conserving biodiversity. iii) To contribute to the conservation of biodiversity on a European and global scale.				
	However, the Government wishes to continue to encourage the development of alternatives to peat for both the less demanding uses and of more specialised alternatives for more demanding uses…				
42	<u>Government Policies in Respect of Peatland in England</u> The Government's policy for peatlands in England is to: i) conserve a sufficient range, distribution and number of all peatland habitats, representing part of the critical natural capital of the country; and promote the wise use of the wetland resource within the nation's peatland heritage; ii) avoid wherever practicable the destruction of important archaeological remains in peatland; iii) enable the horticultural industry to continue to be supplied with peat; and also to encourage the development and use of suitable alternatives so that market needs can be met in different ways; iv) provide a suitable framework for updating old permissions for peat extraction, especially in respect of rehabilitation of sites.				

Paragraph	MPG13 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
43	It is therefore the Government's intention that the future extraction of peat in England from any new sites should be restricted to areas which have already been significantly damaged by recent human activity and are of limited or no current nature conservation or archaeological value. Wherever possible, subsequent restoration of such sites should give priority to wetland rehabilitation and to the enhancement of the nature conservation resource.				
44	Government policy, as agreed in Article 4 of the Framework Convention on Climate Change signed in Rio in 1992 and ratified in 1993, is to adopt policies and take corresponding measures to protect and enhance greenhouse gas sinks and reservoirs. Undisturbed peatlands store large amounts of carbon…The presumption in this MPG against the exploitation of peatlands which have not been significantly damaged will therefore help to meet the UK's Rio commitment.				
45	The demands of the horticultural user markets should be met by a combination of home produced peat, imported peat, and alternative materials. The Government's commitment towards sustainable development and using resources prudently means that unnecessary wastage of resources should be avoided. Therefore, so far as possible, peat should be used for higher quality markets, while its use should be avoided or minimised where it is either not needed or not the best material, for example for general soil improving, and mulching. There may be further scope to reduce total usage of materials in some sectors. There should also be encouragement to use alternatives where these are suitable and represent other "sustainability" objectives such as recycling and waste minimisation. The range of alternatives suitable for the more specialised uses may increase as further research is undertaken.				
51	Development Plans: General Considerations In preparing Minerals Local Plans and UDPs, local authorities in appropriate areas should take into account the policies contained in this MPG. They should make provision for the conservation of peatland habitats and for identification of specific sites or areas which meet the criteria for selection for future peat working, as explained in paragraphs 52 to 61. Early discussion with the minerals industry and with English Nature (EN) and English Heritage (EH) in the preparation of plans will be helpful.				
52	Policies for Nature Conservation of Peatland Habitats and for Peatland Archaeology in Development Plans Sites of raised bog and other peatland habitats of key nature conservation importance should be identified in development plans…Planning authorities should seek advice from EN, who have a statutory role in advising on development plan preparation…Plans should also identify principal areas of major archaeological significance after consultation with the County Archaeological Officer (see paragraphs 75 to 77).				
53	Criteria for Selection of Sites for Future Peat Working: General Approach Peat producers, and other suppliers of materials to the user markets, should determine the level of output they wish to aim for in the light of market conditions.				
56	Guidelines for Development Plans MPAs should have regard to all material considerations when determining applications on these areas, including other national and regional policy guidelines.				
57	To conserve a full range of peatland habitats and archaeological deposits, peat extraction from bogs which retain a high level of nature conservation or archaeological interest should be permitted only in exceptional circumstances. These circumstances are only likely to arise where it can be demonstrated conclusively that extraction will not adversely affect the habitats, species or deposits being safeguarded. The lowland raised bogs of high nature conservation interest will primarily relate to sites, or areas within bogs, which are defined in the National Peatland Resource Inventory as land-use classes P1-P4, or where secondary peat surfaces contain valuable peat-forming species (see Annex B). These are areas which retain a primary peat surface or include a significant proportion of species characteristic of a lowland raised bog habitat. The Secretary of State would normally call-in, for his decision, planning applications which are likely significantly to affect these classes of raised bog. The advice of EN will be taken into account in deciding which applications are likely to have such effects. It is not expected that such sites would be identified for extraction in development plans. The archaeological value of all peatland is not yet systematically recorded, but EH has supported extensive survey work in several major areas and the results of this, and other, survey work is available in the Sites and Monuments records maintained by County Archaeological Officers, who should therefore be consulted by MPAs during plan preparation.				
58	When preparing development plans and in considering any applications for their extraction, mineral planning authorities will need to consider the nature conservation interest of these areas or sites. Where the peatland retains a primary surface, which includes a significant proportion of species characteristic of ombrotrophic (bogs) or minerotrophic (fens) conditions, planning permission should, as in the case of raised bogs,				

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	only be granted in exceptional circumstances. MPAs should consult EN when determining such cases.				
59	To ensure that as far as possible any areas identified in a development plan for peat extraction can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that sites are:- i) of little or no nature conservation or archaeological value; ii) of economically workable deposits; iii) likely to become available to the minerals industry within the plan period; and iv) are not constrained by other land-use policies (eg high quality agricultural land).				
60	Where the criteria listed above cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. But plans must be clear and unambiguously expressed in accordance with PPG12.				
62	Areas Designated for their Nature Conservation Importance: General Planning authorities must consult EN on any development proposals which are likely significantly to affect these sites (see PPG9 "Nature Conservation").				
	As a matter of policy the Government wishes development proposals affecting potential SPAs and candidate SACs before they have been agreed with the European Commission to be considered in the same way as if they had already been classified or designated.				
	The Government has chosen to apply the same considerations to development proposals affecting listed Ramsar sites as are applied to SPAs and SACs (see PPG9).				
69	Nature Conservation, Including Conservation of the Natural Beauty and Amenity of the Land, in Development Plans Structure Plans and part I of unitary development plans set out general policies and proposals on key strategic issues, taking account of the appropriate Published: 10 May 2002 national and regional policy guidance. They should identify key sites of nature conservation importance, such as SSSIs, NNRs, SPAs, SACs and Ramsar sites, to establish a strategic framework and exemplify the particular characteristics of nature conservation interest in the plan area in their national and international context. Policies to be applied to these sites should reflect their relative significance and place particular emphasis on the protection of internationally important sites. The detailed policies in local plans and part II of unitary development plans should conform to this framework.				
70	Structure plans, local plans and UDPs must include policies in respect of the conservation of the natural beauty and amenity of the land. Arising from article 10 of the Habitats Directive, regulation 37 of the Habitats Regulations states that such policies shall include policies encouraging the management of features of the landscape which are of major importance for wild flora and fauna. Suitable planning conditions and obligations may promote such management (for further advice see PPG9 "Nature Conservation").				
71	National Parks and Areas of Outstanding Natural Beauty Planning Policy Guidance Note 7 - "The Countryside and the Rural Economy" (PPG7) provides detailed Government planning policies for development in National Parks, the Broads and AONBs. The same policies apply to the New Forest Heritage Area. The Government considers that major developments should not take place in these areas save in exceptional circumstances. Because of the serious impact that mineral developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all mineral developments should be demonstrated to be in the public interest before being allowed to proceed.				
	Consideration of mineral applications in such areas should therefore include an assessment of: i) the need for the development in terms of national considerations of mineral supply; and the impact of permitting the development, or refusing it, on the local economy; ii) whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iii) any detrimental effect of the proposals on the environment and landscape, and the extent to which that should be moderated; iv) in the case of extensions to existing workings, the extent to which the proposal would achieve an enhancement to the local landscape.				

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	Proposals for mineral working also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance Note 2 -"Green Belts" (PPG2). Mineral extraction need not be inappropriate development in Green Belts; it need not conflict with the purposes of including land in Green Belts provided that high environmental standards are maintained and that the site is well restored.				
76	Archaeological and Other Cultural Interests The peat industry should, wherever practical, ensure that important archaeological and historic remains or features are physically preserved, and MPAs should have regard to the desirability of preserving the wider historic landscape (as defined in PPG15, paragraph 6.40) and of the archaeological heritage when determining planning applications…There should be early consultation with the County Archaeological Officer (listed in PPG16). Where physical preservation is not practical, MPAs should ensure that appropriate provision is made for the recording of archaeological remains, the conservation of significant artifacts and the publication of scientific results.				
77	Some of the most important sites in peatland may be scheduled as ancient monuments (Ancient Monuments and Archaeological Areas Act 1979), in which case scheduled monument consent (SMC) from the Secretary of State for National Heritage, who is advised by EH, must be obtained before any work can commence.				
78	Agricultural Land The Government's policy, as set out in PPG7, is that the best and most versatile agricultural land is a national resource for the future and considerable weight should be attached to protection of such land against irreversible development.				
79	Therefore, when considering the allocation of land for mineral development and in deciding any application for planning permission affecting agricultural land the agricultural implications must be considered together with the environmental and economic aspects, and the feasibility of a high standard of restoration.				
81	Forestry The scope of the Government's forestry and environmental policies for woodlands includes encouraging the establishment of new woodlands which enhance the character and appearance of landscapes and promoting the restoration of derelict land to woodland.				
83	Other Developments Affecting Peatlands Careful consideration should be given to the need for any other types of development to take place on peatlands.				
89	Treatment and Reviews of Existing Permitted Extraction Sites Wherever practical, a priority for after-use schemes should be to provide areas for nature conservation unless a different after-use is already specified by the planning permission and remains technically achievable and appropriate. However, this may not always mean re-creating the conditions which would lead to the re-establishment of a raised bog system. The topics to be covered in rehabilitation and after-use schemes should include: the phasing of remaining extraction; hydrology, water controls and drainage; depths of peat and its characteristics; underlying geology; extraction methods; preservation or recording of archaeological remains; final excavated site topography; vegetation protection, regeneration and management; methods and timescales of site management.				
90	For some sites the terms of existing legal agreements between EN and a site owner or operator should be drawn on in the preparation of schemes to submit to the MPA.				
91	Where an existing site under consideration forms part of a raised bog which also retains areas of nature conservation or archaeological importance, there should be appropriate safeguards to minimise the risk of damage to such areas. In some cases this may include the need to introduce buffer zones between the worked and undisturbed areas; but such measures should be proportionate to the importance and size of the undisturbed areas and their conservation and/or archaeological value.				
92	Considering Individual Planning Applications MPAs should have regard to all material considerations when determining applications, including this Guidance Note and relevant policies in development plans. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, archaeological, agricultural, landscape, traffic, site restoration and other effects of the proposals that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them as appropriate.				

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96	Mineral planning authorities should have regard to the guidance given in paragraphs 52 to 61.				
98	Transport The Government would like to see as much freight as possible carried by rail or waterway rather than by road wherever possible.				
99	Working Practices, Restoration Aftercare and After-use It is established Government policy that restoration and aftercare will be required to make mineral workings environmentally acceptable and fit for beneficial after-use. This may include restoration to peatland habitats, agriculture, forestry, or other forms of amenity use. Applications for extraction of peat need to include information which demonstrates that the site can be restored satisfactorily; and if there is serious doubt whether a new extraction proposal can meet this requirement then it is doubtful whether permission for working should be given. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.				
100	Reinstatement of sites to a condition suitable for an appropriate after-use should be an integral part of the planning of peat extraction.				
101	Implementation and Review This Guidance Note will provide the basic framework for the planning for provision of peat and alternatives for soil improvers and growing media. It will be taken into account by the Secretary of State when considering development plans and individual applications which come before him for decision.				
102	MPAs should take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of materials in a manner compatible with environmental objectives. The plans should also provide guidance on the environmental objectives and the development control criteria which will be applied.				
103	The peat industry should endeavour to ensure that proposals for mineral development are consistent with this Guidance Note and that they are brought forward at the right time. The industry is also responsible for achieving a high standard of operation while a site is being worked and for restoring the site when working has finished.				
104	This Guidance Note has been based on the best information currently available. It will need to be kept under review and updated to reflect changes in demand, development of alternatives and environmental standards				

MPG15: PROVISION OF SILICA SAND IN ENGLAND

Paragraph	MPG15 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
17	Regional Position MPAs in other areas should also take account of this guidance in drawing up minerals local plans.				
28	National Policy Framework: Supply The Government believes that for the economic well-being of the country it is essential that the silica sand consuming industries continue to receive an adequate and steady supply of indigenous raw material so that they can continue to meet the needs of the community for products which use silica sand in their manufacture. It is important that supplies to the manufacturing sector should be provided in the most environmentally acceptable way and with regard to the principles of sustainable development.				
30	Sustainable Development For silica sand, this means that the planning system should ensure that the best and most efficient use will be made of the available resources, so that the extraction of new reserves is limited to what is necessary to meet the needs of the current generation; and that the overall quality of the environment affected by silica sand extraction should be maintained or improved over time. Silica sand deposits should not be sterilised by other forms of development which would make them unavailable for use by future generations without good land-use planning reasons. It is desirable that high grade silica sands should as far as possible be conserved for use where they are required.				
31	Use of Materials It is important that silica sand resources should be used as efficiently as possible and that unnecessary wastage of resources should be avoided. Within the general definition of silica sand, there are certain high grade materials which, wherever possible, should be reserved for industrial end-uses which require such sand and for which there is no readily available alternative. …It is in the national interest that high grade silica sand should not be wasted and that its use in the construction industry should be minimised.				
32	Recycling MPAs and the extracting and consuming industries should therefore consider what steps they can take to encourage re-use/recycling where there are environmental benefits to be gained.				
	In recent years, the glass and foundry industries have made efforts to recycle, both to save sand and to reduce energy consumption. The Government wishes to encourage this and looks to the consumer industries to monitor the amounts of their products which are re-used or recycled and, where appropriate, to set targets for increased re-use/recycling				
	The Government encourages greensand operations to aim as far as possible to achieve a high level of recycling. In the case of resin sand operations, the Government encourages industry to strive for technological advances which will increase the amount of recycling of this type of sand.				
	The consumer industries are encouraged to explore further the scope for such innovation, including technology which would enable the quantities of silica sand required to be reduced further.				
40	Silica Sand Provision in Development Plans In carrying out their development plan functions, local authorities in areas which have historically produced silica sand, or are known to contain silica sand deposits, should take into account the policies contained in this MPG. They should recognise the material scarcity of silica sand and also aim to make provision in their development plans for an appropriate level of production which takes account not only of recent production levels in the area, but also of regional and national needs, through the identification of specific sites and the inclusion of preferred areas or areas of search.				
41	To ensure that the areas identified in the development plan can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that the land is: i. underlain by potentially economically workable deposits of mineral; and ii. likely to become available to the minerals industry within the plan period. Where these points cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty.				

Paragraph	MPG15 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
	Plans must be clear and unambiguously expressed in accordance with PPG12.				
42	In order to assist in the delineation of these areas in development plans, the silica sand industry should co-operate with MPAs wherever possible by providing information about the location of mineral resources in their areas.				
45	Landbanks However, MPAs in areas containing silica sand deposits need to make an appropriate contribution to national requirements and should therefore aim to maintain landbanks of silica sand permissions, as far as this is possible and realistic, provided that the industry comes forward with suitable applications.				
47	Due to the national need for silica sand, it is important that each production site is adequately provided for, unless exceptional circumstances prevail. In practice, this will mean that most sites will require a reasonable level of reserves. MPAs should aim therefore to ensure that landbanks of at least 10 years are maintained for individual sites. However, in operating this policy, MPAs will also need to consider the Government's general policy of encouraging competition. The need for the mineral must be balanced against environmental constraints and there may be overriding environmental reasons why the stock of permitted reserves at some sites may not be replenished as they are used up. Care and flexibility will be needed in addressing these issues. In practice, there may be difficulties as production data may be confidential at site level, but it may be difficult to calculate landbanks or to make specific provision in mineral local plans without this information. It will therefore be in both the MPAs and industry's interests to maintain a dialogue and informed analysis of actual need and supply.				
	In the case of significant new capital investment by the industry in existing or new sites, it may be necessary for the plant to be provided with a stock of permitted reserves to provide for at least 15 years, or substantially longer than this, for greenfield sites, depending on the circumstances.				
52	The landbank requirement should be calculated by multiplying the average of the last 3 years' production for which figures are available by the appropriate number of years or by reference to levels of provision set out in the development plan. The calculations should have regard to the quality of sand and the use to which the material is to be put.				
53	Safeguarding Silica sand is a scarce resource and MPAs should, as far as possible and in co-operation with other planning authorities, safeguard deposits which are, or may become, of economic importance, against other types of development or other constraints which would be a serious hindrance to their extraction.				
54	It is essential to consider the need for silica sand over a longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the timescales and scale of investment of the proposed mineral working in order to prevent undue delay. Where it is possible to extract silica sand prior to some other more permanent form of development this should be encouraged unless there are good planning reasons for not doing so. MPAs may define Mineral Consultation Areas (MCAs) in their plans. These enable county and district councils to liaise where surface development would be likely to affect or be affected by the winning and working of minerals. MPG1 (paragraphs 36-39) provides further advice on MCAs.				
63	Considering Individual Planning Applications: General Planning applications should be determined in accordance with the development plan unless material considerations indicate otherwise. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered the potential effects when preparing planning applications and has sought to mitigate them as appropriate.				
64	Assessment of Need and Supply As far as silica sand is concerned, authorities should have regard to the balance of real need and real supply. But landbank calculations and estimates of real supply can seldom be exact and decisions on individual applications should not be determined on an over-precise calculation of whether supply matches the landbank requirement.				
65	In considering applications, consideration should be given to the position in respect of permitted reserves and whether the particular nature and qualities of the silica sand, such as suitability for particular end-use not met by other available sources in the area or region, in itself justifies granting permission.				

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66	It is important to draw a distinction between the reasons for a landbank as discussed in paragraphs 43-52 above and the need for the size of a particular permission to reflect the levels of capital investment required at specific sites.				
69	Environmental Effects The silica sand industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns on site operation and restoration. Any environmental damage or loss of amenity caused by mineral working should be kept to a minimum.				
70	Operators Proposals In considering proposals for minerals development, authorities will wish to satisfy themselves that the operator's proposals for managing the site, and for restoration and aftercare, will achieve high standards of operating and reclamation practice in accordance with modern planning requirements…MPAs should thus have regard to the practicality of the proposal before them.				
74	Transport Planning authorities should, individually or collectively, have regard to these factors when drawing up policies in their development plans on such matters as transport modes, routing and the safeguarding of freight depots.				
75	Discussions should take place with MPAs at an early stage on how traffic generated by the proposal will be managed to minimise environmental disturbance.				
77	Planning authorities should, as far as they reasonably can, safeguard existing rail head facilities and encourage new ones.				
78	Water Interests MPAs and the industry should take into account the body of legislation in relation to water supply, pollution control and land drainage…The Environment Agency should be consulted about all new development proposals. Where working would take place below the natural water table applications will need to include proposals for a suitable aftercare.				
79	Working Practices, Restoration, Aftercare and After-use Applications for extraction of minerals such as silica sand need to include information which demonstrates that the site will be restored satisfactorily.				
80	Planning applications should include comprehensive plans and statements as to how sites will be progressively worked with a view to achieving particular restoration enabling appropriate after-use to take place.				
82	However, all planning applications should contain sufficient detail of working and restoration methods and programmes to allow an assessment to be reached on the viability of the application and of proposals to achieve the intended after-uses. Operators should therefore draw up Quarry Plans to accompany planning applications.				
83	Where possible working and reclamation should be in a progressive manner……However, the aim should be to minimise the area open and disturbed at any one time and, where reasonably practicable, to secure progressive restoration of the site. Care should be taken to conserve all soil and soil-making materials suitable for use in restoration.				
84	Whether a wet after-use is acceptable will need to be considered alongside the policy on agricultural land set out at paragraphs 61-62 and in consultation with the Environment Agency.				
85	MPAs and the industry should bear in mind opportunities for habitat creation and enhancement even where nature conservation may not be the primary end-use of a site.				
88	Implementation MPAs must take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of silica sand in a manner compatible with environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied.				

Paragraph	MPG15 Policy (Abridged)	Hampshire, Portsmouth, Southampton and New Forest National Park- M&W Core Strategy	Plymouth City Council- Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Core Strategy	Wiltshire Council and Swindon Borough Council- Minerals Dev Control Policies
89	The industry should endeavour to ensure that proposals for mineral development reflect this Guidance Note and that they are brought forward at the right time. The industry is also responsible for drawing up quarry plans, in consultation with the mineral planning authorities; for achieving a high standard of operation while the site is being worked; and for restoring the site when working has finished.				

Appendix 4 Local Development Document matrices continued...

DURHAM COUNTY COUNCIL, DEVON COUNTY COUNCIL, STAFFORDSHIRE COUNTY COUNCIL, DERBY CITY COUNCIL AND DERBYSHIRE COUNTY COUNCIL MINERALS LOCAL PLANS, AND HAVERING LONDON BOROUGH UNITARY DEVELOPMENT PLAN

Key:

✓	Policy integrated
✖	Policy not integrated
	Not Applicable

MPS1: PLANNING AND MINERALS

Paragraph	MPS1 Policy (Abridged)	Durham County Council- Minerals Local Plan, December 2000	Devon County Council- Minerals Local Plan, June 2004	Staffordshire County Council- Minerals Local Plan, 1999	Derby City Council and Derbyshire County Council- Minerals Local Plan, April 2000	Havering London Borough- Unitary Development Plan, March 1993
11	Exploration Consider carefully applications for mineral exploration in order to avoid or minimise adverse impacts on the environment.					
12	Survey Use the best available information on mineral resources within their areas and consider the social, environmental and economic benefits and constraints of working them.					
	Undertake regular assessments of the reserves for which planning permission has been granted for all mineral workings in their areas, taking into account the need for, distribution, production and uses of, each type of mineral, while maintaining mineral operators' reasonable needs for commercial confidentiality.					
	Assess the range, volumes and availability of waste material which may exist within reasonable proximity and which could provide suitable alternatives to primary minerals					
13	Safeguarding Define MSAs in LDDs	✖	✖	✓	✓	✓
	Encourage prior extraction of minerals	✓	✓	✖	✖	✓
	In two-tier planning areas, include policies and proposals to safeguard mineral resources within MSAs in county LDDs and show MSAs in district LDDs. Counties should define MCAs and should be reflected in district LDDs.	✓	✓	✓	✖	✖
	District councils responsible for spatial planning of land defined in MSAs should not normally include policies and proposals in their LDDs for non-minerals development in those areas, or sensitive development around safeguarded mineral areas, where such policies would affect the potential for future extraction of minerals.					
	Safeguard existing, planned and potential rail heads, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals.	✓	✓	✖	✖	✖
	Identify future sites to accommodate the above facilities and reflect any such allocations in the LDDs of district councils in two-tier planning areas.	✖	✓	✖	✖	✖

Paragraph	MPS1 Policy (Abridged)	Durham County Council- Minerals Local Plan, December 2000	Devon County Council- Minerals Local Plan, June 2004	Staffordshire County Council- Minerals Local Plan, 1999	Derby City Council and Derbyshire County Council- Minerals Local Plan, April 2000	Havering London Borough- Unitary Development Plan, March 1993
	Safeguard existing, planned and potential sites for mineral handling, processing and distribution. Where appropriate, identify future sites for these uses and reflect any such allocations in the LDDs of district councils.	✘	✓	✘	✘	✓
14	Protection of heritage and countryside Where minerals development is proposed within, adjacent to, or where it is likely to significantly affect a European site (potential and classified SPA, candidate and classified SAC and listed Ramsar Sites), take account of the advice contained in PPS9 and the accompanying joint ODPM/Defra Circular.	✓	✓	✓	✓	
	Do not permit major mineral developments in National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites except in exceptional circumstances					
	Consideration of such applications should therefore include an assessment of: i the need for the development ii the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need for it in some other way; iii any detrimental effect on the environment, the landscape and recreational opportunities.					
	Do not normally grant planning permission for a proposed mineral development on land within or outside a SSSI, if it is likely to have an adverse effect on a SSSI.	✓	✓	✓	✓	✓
	Ensure that the statutory protection given to many individual wildlife species, and the special protection afforded to European protected species, is fully taken into account when considering mineral proposals which might affect them.	✓	✓	✓	✓	✓
	Consider carefully mineral proposals within or likely to affect regional and local sites of biodiversity, geodiversity, landscape, historical and cultural heritage.	✓	✓	✓	✓	✓
	There is a general presumption against inappropriate development in the Green Belt, which should not be approved except in very special circumstances, mineral extraction need not be inappropriate development. However, in permitting mineral developments in Green Belts, authorities should ensure that high environmental standards are maintained during operation, and that sites are well restored to after-uses consistent with Green Belt objectives. All mineral-related developments in the Green Belt should be assessed against the policies in PPG2.	✘		✓	✓	✓
	Adopt a presumption in favour of the preservation of listed buildings, nationally important archaeological remains, if mineral proposals would cause damage or have a significant impact on them, unless there are overriding reasons of national importance for the development to proceed.	✓	✓	✓	✓	✓
	Do not permit mineral proposals that would result in the loss or deterioration of ancient woodland, unless the need for, and benefits of, the development in that location outweigh the loss of the woodland habitat.	✓	✘	✓	✓	✓
	Take account of the value that existing woodland offers in terms of amenity and habitat, when considering mineral proposals.	✓	✘	✓	✓	✓
	Where significant development of agricultural land is unavoidable, seek to use areas of poorer quality land in preference to that of a higher quality, except where this would be inconsistent with other sustainability considerations.	✓	✓	✓	✓	✓
	Take account of the value of the wider countryside and landscape.	✓	✓	✓	✓	✓
	Have regard to the positive or negative effects that minerals operations may have on rural communities and the extent to which adverse impacts of such operations could be moderated.	✓	✓	✓	✓	✓
15	Supply Identify at the regional level, those minerals which are of national and regional significance and include policies for them in RSS.					
	Aim to source mineral supplies indigenously.	✘	✘	✘	✘	✘

Paragraph	MPS1 Policy (Abridged)	Durham County Council- Minerals Local Plan, December 2000	Devon County Council- Minerals Local Plan, June 2004	Staffordshire County Council- Minerals Local Plan, 1999	Derby City Council and Derbyshire County Council- Minerals Local Plan, April 2000	Havering London Borough- Unitary Development Plan, March 1993
	Before considering the extraction of primary materials, take account of the contribution that substitute or recycled materials, mineral products and marine dredged aggregates would make to the supply of materials.	✓	✓	✓	✓	✘
	Ensure the best integration of social, environmental and economic costs and benefits is achieved, through applying the principles of sustainable development, by carefully considering how best to maintain an adequate and steady supply of minerals for the economy and society, commensurate with protecting the environment and securing the prudent use of natural resources, and set out policies to achieve this in RSSs and LDDs.	✓	✓	✓	✘	✘
	Identify sites, preferred areas and/or areas of search, having taken account of environmental considerations, to provide greater certainty of where future sustainable mineral working will take place.	✓	✓	✓	✓	✓
	Consider the benefits, in terms of reduced environmental disturbance and more efficient use of mineral resources, of extensions to existing mineral workings rather than new sites.	✓	✓	✓	✓	✘
	Take account of the benefit, including the reduction in carbon emissions, which local supplies of minerals would make in reducing the impact of transporting them over long distances by road.	✓	✓	✓	✓	✓
	Recognise the important role that small quarries can play in providing historically authentic building materials in the conservation and repair of historic and cultural buildings and structures.	✘	✘	✘	✘	✘
	Where extraction of more than one mineral from a site is proposed, consideration should be given to any relevant planning guidance specific to each mineral.					
	Provide for the maintenance of landbanks, i.e. appropriate levels of permitted reserves, for non-energy minerals as far as is practicable from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage sites.	✓	✓	✓	✓	✘
	Enable the minerals industry, so far as is practicable, to secure productivity growth and high and stable levels of employment, which are central to long-term economic performance and rising living standards.					
16	<u>Bulk transportation</u> Seek to promote and enable the bulk movement of minerals by rail, sea or inland waterways to reduce the environmental impact of their transportation.	✓	✓	✓	✓	✓
	Promote facilities at ports and rail links that have good communications inland, so that bulk minerals can be landed by sea and distributed from ports, as far as is practicable, by rail or water.	✓	✓	✘	✘	✘
	Safeguard and promote rail links to quarries where there is potential to move minerals by rail.	✓	✓	✘	✘	✘
17	<u>Environmental Protection</u> Seek to protect and enhance the character of surrounding rural and urban areas by careful planning and design of any proposals for minerals development.	✓	✓	✓	✓	✓
	Encourage mineral operators to adopt sound working practices to prevent/ minimise, environmental impacts to acceptable levels during the preparation, working and restoration stages.	✘	✘	✘	✘	✘
	Encourage mineral operators to incorporate and maintain good environmental management practices into their company procedures and apply them during the operation of their sites.	✘	✘	✘	✘	✘
	Require mineral operators to seek and maintain effective consultation and liaison with the local community before submitting planning applications and during operation, restoration and aftercare of sites.	✘	✘	✘	✘	✘
	State the criteria to be used in assessing mineral proposals and in formulating planning conditions, to ensure that permitted operations do not have unacceptable adverse impacts on the environment or human health.	✓	✘	✓	✓	✘
	Ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations caused by mineral extraction are in conformity with national guidance and are controlled, mitigated or removed at source, so as to reduce to an acceptable level any potential adverse impacts on	✓	✘	✓	✓	✓

Paragraph	MPS1 Policy (Abridged)	Durham County Council- Minerals Local Plan, December 2000	Devon County Council- Minerals Local Plan, June 2004	Staffordshire County Council- Minerals Local Plan, 1999	Derby City Council and Derbyshire County Council- Minerals Local Plan, April 2000	Havering London Borough- Unitary Development Plan, March 1993
	neighbouring land and property.					
	Encourage the establishment of mineral site transport plans in consultation with the local community, dealing with matters including routing, off-site parking, considerate driving and complaints procedures.	✘	✘	✘	✘	✘
	Consider in association with the EA, the potential for mineral developments, individually or cumulatively, to affect the flow, quality and quantity of surface and groundwater supplies and the water table, taking account of best available options in preventing leachate generation and water pollution.	✓	✓	✓	✓	✓
	Ensure, in association with the EA, that in areas at risk of flooding, mineral extraction proposals do not have a significant adverse impact on flood flows or flood storage capacity. Operators should demonstrate that mineral working should not materially increase the risk of flooding at other properties or locations and, where practicable, should increase flood storage capacity.	✘	✓	✓	✓	✓
	Ensure that proposals for mineral extraction and the storage and tipping of mineral wastes are designed, and appropriate monitoring procedures set up, to ensure that the operation and restoration of the site does not create land instability and help prevent pollution of soil, air, surface water and groundwater.	✘	✘	✘	✓	✘
	Ensure that proposals for mineral extraction from coastal cliffs, beaches and dune systems do not adversely affect the stability of the coastal environment, increase the rate of coastal erosion or vulnerability to flooding, or affect sensitive habitats, landscapes or Heritage Coasts.	✘	✓			
18	<u>Efficient use</u> Encourage the efficient use of all minerals and alternatives to them.	✘	✘	✓	✓	✘
	Encourage high quality materials to be used for appropriate purposes, but taking account of the need to avoid undue delays to site reclamation.	✓	✘	✓	✘	✘
	Minimise the amount of minerals waste produced in extraction, handling, processing and stockpiling.	✓	✓	✓	✓	✘
	Maximise the potential for minerals waste to be used for recycling or in-site restoration, but if not required for these purposes and where practicable, identify a market for its potential use.	✓	✓	✓	✘	✘
19	<u>Restoration</u> Take account of the opportunities for enhancing the overall quality of the environment and the wider benefits that sites may offer, including nature and geological conservation and increased public accessibility	✓	✓	✓	✓	✓
	Consider the opportunities that sites may offer for the development of new woodland areas and for providing networks of habitats.	✓	✘	✓	✓	✓
	In order to avoid the possibility of mineral working resulting in dereliction, ensure land is reclaimed at the earliest opportunity and that high quality restoration and aftercare of mineral sites takes place through the provision of guidance on suitable or preferred after-uses and reclamation standards, and the use of conditions and legal agreements, as appropriate.	✘	✓	✓	✘	✘
	Ensure proposals for restoration and aftercare of sites include details of appropriate phasing of progressive restoration, final landform and landscape and monitoring procedures.	✓	✓	✓	✓	✓
	Develop a strategy for inactive sites with planning permission for future working, which are considered unlikely to be reactivated in the foreseeable future.	✘	✘	✘	✘	✘
	Maintain or improve the Public Right of Way network around restored mineral sites as far as practicable.	✓	✓	✘	✓	✘
	Do not seek or require bonds or other financial guarantees to underpin planning conditions, except as set out in MPG7.					
	Where restoration of mineral workings is through landfill or to a wetland habitat, consult the owner or operator of civil and military aerodromes within 13km, in order to assess the likelihood of increasing the bird strike hazard.					

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	Annex 1: Aggregates					
3.2	RPBs should apportion the Regional Guidelines to the local authority level in collaboration with their constituent MPAs, taking account of technical advice from the RAWPs. The apportionment should be subject to sustainability appraisal, incorporating strategic environmental assessment.					
3.3	RAWPs will undertake annual monitoring of aggregates reserves and supply and will prepare commentaries on results, especially supply and demand, for the Department and the RPBs. Where necessary, RAWPs should liaise with the Regional Technical Advisory Bodies on planning for the management of wastes.					
3.4	RPBs must have regard to the current National and Regional Guidelines for Aggregates Provision in England, in preparing RSS. They should use the process of reviewing and revising RSS to update sub-regional apportionments. If a MPA notifies the RPB that it is unable to identify sufficient resources to meet the apportioned supply over the plan period at acceptable environmental cost, the RPB should consider the consequences for supply and demand within the region taking advice from the RAWP, and consulting the Department if there are likely to be national implications. A shortfall in one part of a region should, where practicable, be made up for elsewhere in the same region.					
3.5	The Secretary of State will, where appropriate, intervene in a RSS that does not take full account of the regional aggregates guidelines and of agreed sub-regional apportionments.					
3.6	In preparing their LDDs, MPAs should make provision for the sub-regional apportionment of the current National and Regional Guidelines for land-won aggregate in the approved RSS or, if there is not an approved RSS, as agreed by the RPB and endorsed by the Secretary of State.	✓	✓	✓	✓	✓
	Provision should take the form of specific sites, preferred areas and/or areas of search identified in LDDs. An approach to this work is set out in the MPS1 Practice Guide. Specific provision may need to be made for aggregates that meet particular or demanding specifications, such as those for high polished stone value, building or asphalting sand.	✓	✓	✘	✓	✘
3.9	It is important that, once identified, the main options considered for making the agreed provision are subject to sustainability appraisal before leading to a preferred option in LDDs.					
3.10	If it is not possible for a MPA to identify sufficient resources in its area to meet the apportioned supply over the plan period at acceptable environmental cost, this should be reported to the RPB as soon as possible.					
	The Secretary of State will, where appropriate, intervene in the preparation of LDDs where MPAs do not pay due regard to the agreed apportionment.					
4.1	MPAs should use the length of the landbank in its area as an indicator of when new permissions for aggregates extraction are likely to be needed. The landbank indicators are at least 7 years for sand and gravel and at least 10 years for crushed rock. A longer period may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets, and productive capacity of permitted sites. A landbank below these levels indicates that additional reserves will need to be permitted if acceptable planning applications are submitted. Because individual sites, when permitted, need sufficient reserves to be economically viable, consideration of the landbank needs to be flexible enough to allow for this. A large existing landbank bound up in very few sites should not be allowed to stifle competition.					
4.2	MPAs should consider and report on the need to review policies in their LDDs as part of their annual monitoring report to the Secretary of State. This should be done in time to allow for action before the remaining provision falls below the agreed apportioned level. If review and updating take place regularly then maintaining a landbank beyond the end of the plan period is not an issue.					
4.3	If, taking all of these matters into account, existing landbanks are judged by a MPA to be excessive: • new planning permissions should only be given where it can be shown that demand could not be met from the existing permitted reserves, for example, for reasons of type and quality of the aggregate and/or distance to the market; • the industry should consider voluntarily agreeing to revocation, or prohibition orders, in respect of planning permissions at sites that are unlikely to be worked again.					
4.4	MPAs should carry out, in consultation with the RAWPs and other relevant bodies, and publish the results of, regular reviews of sites that have not been worked for 10 years or more, to assess whether production is likely to begin again. Sites that individual operators agree are unlikely to be worked again should be excluded from the landbank calculation, and they should be made subject to prohibition orders to remove the					

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	possibility that subsequent changes in ownership could unexpectedly revive development proposals.					
	Where there is a distinct and separate market for a specific type or quality of aggregate, for example high specification aggregate, asphalting sand, building sand or concreting sand, separate landbank calculations and provisions for these may be appropriate.	✓	✘	✓	✘	✘
5.1	It is Government policy to encourage the greatest possible use of alternatives to primary aggregates. The National and Regional Guidelines for Aggregates Provision in England set a target that will be reviewed annually and revised when necessary. Guidance on planning for waste management is contained in Planning Policy Statement 10.					
5.2	Where mineral or other wastes suitable for use as aggregates have been deposited in tips, without the benefit of planning permission for future use, and these have revegetated and blended into the landscape, any applications for working of these materials should be dealt with in the same way and, if permitted, worked to the same standards as a successful new application for primary mineral extraction.					
6.1	It is Government policy to encourage the supply of marine-dredged sand and gravel to the extent that environmentally acceptable sources can be identified and exploited, within the principles of sustainable development.					
7.1	Identifying, assessing, operating and restoring borrow pits should be undertaken to the same standards as those for long-term mineral workings and should be subject to similar levels of consideration of environmental impacts.	✓	✓	✓	✓	✘
	Annex 2: Brick Clay					
3.1	MPAs should ensure that brick clay resources are safeguarded in accordance with MPS1. Some types or qualities of brickclay that have desirable properties, especially Etruria Marl and fireclay, are nationally, regionally or locally scarce. Relevant MPAs should safeguard acceptable sources of Etruria Formation clays and fireclays from other types of development and should, where practicable, encourage prior extraction of clay where built development is planned.	✘	✓	✓	✘	
3.2	It is generally desirable that brick clay should be extracted as close as practicable to the brickworks that it is supplied to. MPAs should initially consider the potential for extraction of brick clay close to the works and the potential for extensions to existing planning permissions to maintain supplies. Where supply is needed from more distant sources these may exist in a MPA's area other than that where the brickworks is located. The relevant LPA should therefore liaise in planning for appropriate sources of provision. Where a works is likely to require supplies from more than one region, the relevant RPBs should assist in the necessary discussions.	✘	✘	✘	✘	
3.3	MPAs should have regard to the need for clay supply for local use and repair of heritage buildings to meet the objectives of PPS1, and should assess the potential for environmentally acceptable extensions to, and replacements for, such sites. Policies should be proportionate to the levels of potential impacts.	✘	✘	✘	✘	
3.4	When developing planning policies and considering planning applications, MPAs and LPAs should take account, as appropriate, of: • the need for provision of brick clay from a number of different sources to enable appropriate blends to be made. Where materials for blending need to be supplied from various sources, or for some types of clay that are used in small quantities for blending, it may be necessary to hold stocks of such clay at the brickworks or elsewhere; • the need to provide a stock of permitted reserves to support the levels of actual and proposed investment required for each new or existing manufacturing plant and the maintenance and improvement of existing plant and equipment. This will normally be sufficient to provide for 25 years of production. Separate provision may be needed for particularly scarce clays, such as Etruria Marl and fireclay, that will serve a number of works, sometimes over long distances; • the need to meet the likely level of demand for clay at each manufacturing plant, part or all of which may sometimes have to be fulfilled from another MPA area, to avoid having to meet unforeseen demands in environmentally damaging ways; • in some cases, the scope to use negotiated planning agreements to restrict, if necessary, the use of the clay extracted for brick making to the associated brickworks in order to reduce environmental impacts; and the need to recognise the potential for sales of clay for other uses, particularly engineering purposes, such as lining, daily cover and capping material for landfill sites, the lining of canals, lakes and ponds, as construction fill or as bulk fill suitable for roadway construction or for the manufacture of lightweight aggregate or cement. In some cases, clay pits may be operated mainly or wholly for these other purposes rather than for brick clay extraction.	✘	✘	✘	✘	

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3.5	Where scarce reserves of Etruria Formation clays or fireclays cannot be used when extracted, consideration should be given to the potential for stockpiling the material on an environmentally acceptable site, either on or in the ground, until it is needed. Proper account should be taken of the environmental impacts that are associated with stockpiling sites when considering whether these should be provided.	✓	✘	✘	✘	
3.6	MPAs should encourage coal producers to make the best possible use of fireclay reserves including, where practicable, finding a market for any fireclay associated with the coal that is being extracted, so that it remains available for use rather than being replaced in the void during site restoration.	✘		✘	✘	
3.7	Where a brickworks is supplied from a number of clay pits some distance from the works, impacts of road traffic between these and the works should, as far as possible, be minimised through off-road transport, such as field conveyor systems, dedicated haulage routes, and careful consideration of distribution networks and vehicle routes.	✘	✓	✘	✘	
3.8	MPAs should liaise with the Environment Agency and LPAs to ensure that where planning conditions for manufacturing plant are necessary they should complement, not duplicate, conditions contained in IPPC permits.					
	The brick, clay pipe and clay tile manufacturing industry is encouraged to ensure that: when clays are to be blended, the resulting blend should not contain a proportion of premium clays in excess of that needed for the specified use.	✘	✘	✘	✘	
	Annex 3: Natural building and roofing stone					
3.1	RPBs and the Mayor of London should set out policies in their RSSs or the Spatial Development Strategy in London, for safeguarding nationally, regionally and locally significant building stone resources.					
3.3	Many important sources of building stone have been long disused, and would need a new planning application to be worked again. Important historic quarries should be safeguarded, as far as practicable, where it can be shown: • that the quarry was the original source of stone used in the construction of a historic building or monument; or • that the stone is technically compatible with material in the structure to be repaired; and • that stone from the quarry is, or will be, required for restoration or conservation purposes in the absence of viable alternatives.	✘	✘	✘	✘	
3.4	MPAs should consider whether small-scale extraction of building stone might be sustainable at, or close to, relic quarries, some of which have been designated in respect of industrial archaeology, wildlife and geological conservation, where small scale extraction would contribute to repair of historic buildings without compromising the requirement to protect designated site. Any extraction and restoration proposals should have proper regard to the purposes of the designation both during and after extraction.	✘	✓	✘	✘	
3.5	LPAs should notify Natural England and English Heritage when a development proposal is made which affects an old building stone source to provide an opportunity for its significance to be assessed.					
3.6	MPAs and LPAs should have regard to the local, regional and national need for certain building and roofing stones for the conservation and restoration of England's historic built environment where their use is specified: • because of aesthetic or technical properties, particularly where English Heritage advises that stone used for restoration or conservation purposes must be a compatible match, usually from a similar lithological horizon as the stone that was originally used; • to help meet the objectives of PPG15.	✘	✘	✘	✓	
3.7	MPAs and LPAs should liaise on and have regard to the local, regional and national need for certain building stones for new construction, within the context of the RSS, where their use is specified because of: • proven durability; • aesthetic or technical properties, particularly where new construction is to take place in the midst of older buildings constructed of a certain stone; and • any design requirements set out in local design guides, planning policies and supplementary planning documents.	✘	✓	✘	✘	

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3.8	Where an exact match of stone is not possible, potential alternative sources of supply, if any, should be considered.					
3.9	MPAs should, as far as is practicable, identify in their LDDs, quarries of importance to the built heritage, whether disused or active, and describe the approach to be taken to these in terms of minerals and other planning applications.	✘	✓	✘	✘	
3.11	Each proposal needs to be considered on the basis of its specific characteristics and potential environmental and landscape impacts, and: • whether formal environmental assessment under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 ("the 1999 EIA Regs") is justified for proposals to develop and operate small stone quarries; and • where proposals to re-activate dormant quarries are submitted, MPAs/LPAs will, under the Reviews of Interim Development Order permissions and Old Mineral Permissions (under the Planning and Compensation Act 1991 and Environment Act 1995 respectively), have to consider updated operating and restoration conditions for the working of the quarries. Similarly, updated conditions for all active quarries will need to be considered as part of the periodic review process under the 1995 Act.					
	…High quality stone suitable for building and/or roofing, particularly that which is scarce and may be required for future conservation work, should not be used for the production of aggregates where lower quality rock suitable for crushing would suffice.	✘	✘	✘	✘	
3.14	MPAs, LPAs and minerals operators should consider carefully, in liaison with Natural England and English Heritage, the potential for partial restoration of building stone quarries before the expiry of planning permission for extraction. This should be linked, where practicable, to new opportunities for archaeological, geological, wildlife and industrial heritage conservation and education, but retaining, where practicable, the potential for future access to supplies of small quantities of stone that may be needed at intervals in the future for repair of the historic built environment for which the site in question is an appropriate source.					
	Annex 4: On-shore oil and gas and underground storage of natural gas					
3.1	The industry should make available to MPAs information on the extent of known reserves of oil and gas, its forward plans and any potential sites for exploration, appraisal or production that it is considering and for which it holds exploration or production licences. However, MPAs should note that much of this information may be commercially sensitive.					
3.2	Conventional oil and gas development broadly consists of 3 phases- exploration, appraisal and production. RPBs should set clear guidance and criteria for location of Conventional oil and gas development (COG) development sites within the areas that are licensed for oil and gas exploration or production. MPAs should include policies in their LDDs that distinguish clearly between the three phases and should also identify any environmental and other constraints on production and processing sites, within areas that are licensed for oil and gas exploration or production, in those documents.	✓		✓	✘	
3.4	<u>Seismic Investigations</u> Permitted Development Rights should not be withdrawn without very good reasons.					
3.5	In all cases the industry should fully discuss its proposals with the LPAs and statutory agencies. MPAs and highway authorities should be informed of the intended route for the survey, and prior notification given to residents on the immediate survey route. In two-tier planning areas, where county councils are the MPAs, operators should also ensure that district councils are aware of the intended investigations, and their commencement dates.					
3.7	<u>Drilling</u> Policies should be drafted to ensure that each application to explore will be considered on its own merits, in accordance with the present guidance, and in relation to LDDs and any other relevant material considerations. These considerations should not include any hypothetical future proposal for development of the oil or gas resource.					
3.8	In submitting an application for drilling, the developer should indicate what knowledge has been gained from seismic investigations in selecting the well site. Policies should indicate that, subject to the effects on the environment being appropriately addressed and mitigated, and a satisfactory restoration and aftercare plan prepared, applications for exploration may be favourably considered.					

Paragraph	MPS1 Policy (Abridged)	Durham County Council- Minerals Local Plan, December 2000	Devon County Council- Minerals Local Plan, June 2004	Staffordshire County Council- Minerals Local Plan, 1999	Derby City Council and Derbyshire County Council- Minerals Local Plan, April 2000	Havering London Borough- Unitary Development Plan, March 1993
3.9	Where environmental or other conditions might preclude vertical drilling, MPAs should discuss with the industry the option of employing directional drilling. LDD policies should make clear that this approach will be adopted and that careful consideration will be given to factors such as: • the need for night-time drilling for safety reasons; • locating sites to minimise visual intrusion; • controlling vehicular activity and vehicle routing; • controlling the disposal of mud and other drilling residue; and • controlling noise and light emissions from drilling rigs with particular reference to night-time operations.					
3.10	Section 106 agreements should not duplicate planning conditions or conditions attached to the award of a licence by DTI.					
3.11	Because of the intrusive nature of drilling operations, policies should provide that these will not be permitted close to houses and other noise-sensitive properties unless noise levels from drilling and associated operations can be reduced to acceptable levels.	✘		✘	✓	
3.12	Particular care should be taken about siting all types of oil and gas wells close to water supply wells or boreholes.	✘		✘	✘	
3.13	Appraisal As with all other forms of development, an application for an appraisal well must be considered on its merits. This consideration should take into account the long-term suitability of the site since such wells may subsequently be required for production purposes. The other factors listed above for exploration wells are equally relevant to appraisal wells. LDD policies should reflect this.	✓		✘	✓	
3.14	Production and Distribution Gathering stations should not be sited where they would have unacceptable adverse environmental impacts.	✓		✓	✓	
3.15	Pre-application discussions between the MPA and the industry on potential production proposals are essential. For the larger finds, it will be particularly important to establish how far the envisaged surface production facilities would be sufficient to handle the expected output from the find, or related finds as a whole.					
3.16	Policies should make clear that conditions are likely to be imposed governing, amongst other matters: • timing and method of gas flaring, (also controlled by DTI under the Energy Act 1976); • access; • the direction of vehicles leaving the site; • noise emissions; • prevention of pollution associated, for example, with possible spillages; • the means of disposal of unwanted gas; and • the method by which the end product is to be transported from the well site or gathering station.	✘		✘	✓	
3.17	Operators should address all of these points in their planning applications and, where necessary and appropriate, in supporting environmental statements. Where possible, export terminals should be sited where they can feed into a long distance pipeline, or are connected to a railway or water transport, in preference to relying on road transport.					
3.18	Where pipelines are to be used for transporting extracted oil and gas it will be necessary for operators to obtain consent from the appropriate authorities (the relevant MPAs, the Environment Agency and the Health and Safety Executive) for routes, vehicle access, the location of machinery storage areas, and of pipes, pipelaying equipment and other construction materials. In drawing up proposals, operators should avoid environmentally sensitive locations and take account of any potential impacts on nature conservation, for example the movement of animals.					

Paragraph	MPS1 Policy (Abridged)	Durham County Council- Minerals Local Plan, December 2000	Devon County Council- Minerals Local Plan, June 2004	Staffordshire County Council- Minerals Local Plan, 1999	Derby City Council and Derbyshire County Council- Minerals Local Plan, April 2000	Havering London Borough- Unitary Development Plan, March 1993
	Proposals should also take into account the possible implications for agricultural activities, consulting where necessary with associations that represent agricultural interests.					
3.19	For pipelines less than 10 miles in length, planning permission is required from the MPA. Longer pipelines require authorisation from the SSTI under the Pipelines Act 1962, although the usual planning and environmental considerations would be taken into account. The views of the LPAs, the Environment Agency, Natural England, the Health and Safety Executive, landowners and tenants should be sought. Also, a full environmental impact assessment statement would normally be required. On granting authorisation, the SSTI would then direct that planning permission for the pipeline shall be deemed to have been granted. In all cases, it is essential that land affected by pipeline development should be properly restored.					
3.21	Coalbed methane (CBM) MPAs should identify in their LDDs the extent of the coalfield with reserves at depths below the surface of between 200-1500m and of areas which are licensed for CBM by the Coal Authority. The LDDs should also list the principal constraints likely to affect any proposed production and processing sites within those areas.	✘		✘	✘	
3.22	LDDs should make it clear that planning permission for exploration and appraisal does not carry with it any presumption that long-term production from those wells, or that the development of further wells, will be permitted.					
3.23	The main environmental impacts associated with CBM development are similar to those for COG. However, particular attention should also be given to the abstraction of any groundwater and its impacts, as well as the disposal of water produced during well stimulation and production of gas. The Environment Agency must be consulted and the relevant permission(s) obtained before any disposal or abstraction takes place.					
3.24	Accordingly, LDD policies should indicate that: • where initial proposals are environmentally acceptable and accord with the principles of sustainable development, planning permission might be granted for the initial hub of exploration wells, subject to their removal and restoration, if gas is not found in commercially viable quantities (or they are not needed to keep pumping water to protect production from an adjoining gas area); • this does not extend to the later approval of detailed schemes for production from those wells should the occasion arise; • options for the further development of the area should be presented for consideration in principle at the same time, to ensure that the immediate and potential longer-term environmental impacts of the development are understood by the MPA and that the applicant is aware of the risk of a subsequent refusal of planning permission; • further hubs of wells for the exploration, appraisal or later production phases will require separate applications and permissions on the same basis, supported where necessary by an environmental statement (or supplementary statement) related to the further development for which permission is sought; and • the industry should therefore discuss its proposals fully with the MPA well before a formal planning application is made, so that all the • options and longer-term issues can be properly considered.	✘		✘	✘	
3.25	MPAs in coalfield areas should, therefore, encourage capture and use by including appropriate policies in their development documents.	✘		✘	✘	
3.27	Underground coal gasification DTI has examined the opportunities for UCG and its potential contribution to the future UK energy supply. If this source of energy is to be exploited then an experimental UCG development would need to be undertaken. If any such experiment were to be proposed in England, it would be subject to all the usual planning procedures including the Secretary of State's power to call-in applications for her own determination.					
3.28	Because of the absence, so far, of any UCG development in the UK, the technique is not referred to in the Schedules to the 1999 EIA Regulations or the accompanying Circular 02/99.3 However, if a MPA were to receive a pre-application enquiry regarding a UCG proposal it should pay close attention to the potential environmental impacts, both above and below ground, in considering whether an environmental impact assessment is required. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.					

Paragraph	MPS1 Policy (Abridged)	Durham County Council- Minerals Local Plan, December 2000	Devon County Council- Minerals Local Plan, June 2004	Staffordshire County Council- Minerals Local Plan, 1999	Derby City Council and Derbyshire County Council- Minerals Local Plan, April 2000	Havering London Borough- Unitary Development Plan, March 1993
4.4	Underground Storage of Natural Gas Therefore, county and district authorities in areas that have underground gas storage potential should discuss this issue and agree coherent policies for dealing with applications. When applications are submitted, these authorities should agree which are county council matters and which are not, depending on the circumstances of the application, including all the development that is proposed. Unitary and National Park authorities should also, where appropriate, develop planning policies for dealing with applications for underground gas storage.	✘		✘	✘	
4.5	MPAs should consider whether there is a need for policies on underground gas storage in their LDDs on the basis of local geological circumstances. Where appropriate, MPAs and LPAs should collaborate in developing these policies, and areas where there might be potential for such storage should be indicated in their LDDs.					
4.6	MPAs should take account of matters concerning surface and underground development associated with gas storage that are material to the determination of the planning application.					
4.7	General issues that should also be taken into account are: • that Government welcomes proposals to increase flexibility in the UK gas market, but is not prescriptive about how this is to be achieved. Proposals are a commercial matter for the market; • the national energy policy benefit of the proposal; • the likelihood that suitable onshore locations for gas storage will be very limited in number, due to the lack of suitable geographical features for underground gas storage, so that alternative possibilities may not be available; • the acceptability of proposals and measures to mitigate the potential environmental • impacts of exploration and development of the proposed facility, in terms of both the surface and subsurface works; and the integrity and safety of underground facilities especially in terms of maintenance of the pressure regime, the prevention of leakage of gas and the avoidance of pollution.	✘		✘	✘	
4.8	It is likely that most applications for significant gas storage facilities will require environmental impact assessment. Applications and any accompanying environmental statements should include adequate information on the suitability of proposed sites for secure and safe containment of gas or the means of making them so, and the avoidance and control of pollution. Among the other consultations that may be made necessary by the characteristics of the site, the Environment Agency should always be consulted in view of the potential impacts on aquifers and groundwater.					
4.9	Applicants should confirm with the MPA whether hazardous substances consent under the Planning (Hazardous Substances) Act 1990 is required. The Health and Safety Executive are statutory consultees in the process and would be consulted on whether there are safety grounds for refusal of applications.					

MPS2: CONTROLLING AND MITIGATING THE ENVIRONMENTAL EFFECTS OF MINERALS EXTRACTION IN ENGLAND

Paragraph	MPS2 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
9	An environmental assessment of an extension or a modification to an existing site should concentrate on the effects of the proposed modification, and take into account operations on the existing site affected by the modification. The assessment should consider if the modification could lead to a level of environmental impact that would be unacceptable for the site as a whole, or if the proposed extension would bring the perimeter of the site closer to existing communities (thereby changing the nature or degree of the impact on existing communities)					
10	Policies and proposals in development plans have a key part to play in meeting the Government's objectives of ensuring that development and growth are sustainable. They should have regard to Planning Policy Statement 1(PPS1): Delivering Sustainable Development (2005) and Minerals Planning Guidance Note 1 (MPG1): General Considerations and the Development Plan System (1996) (currently under review) which provide advice on planning policy for Local Planning Authorities (LPAs), MPAs and the minerals industry. When, as expected, MPG1 is replaced by Minerals Policy Statement 1 (MPS1), similar regard should be given to this successor document.	✘	✘	✓	✘	✓
11	Development plan policies and proposals for minerals extraction and associated development should take into account: • the impacts of mineral working, such as visual intrusion, dewatering, water pollution, noise, dust and fine particulates, blasting and traffic; • the impacts on landscape, agricultural land, soil resources, ecology and wildlife, including severance of landscape and habitat loss, and impacts on sites of nature conservation, archaeological and cultural heritage value; • the benefits such as providing an adequate supply of minerals to the economy and hence for society (including construction materials needed for the development of national infrastructure and the creation of sustainable communities), creating job opportunities, and the scope for landscape, biodiversity and amenity improvements through mineral working and subsequent restoration; and • the methods of control through planning conditions or agreements to ensure that impacts are kept to an acceptable minimum.	✓	✓	✓	✓	✓
12	Policies and proposals should take into account the level of existing activity and impacts, the duration and nature of proposals for new or further working, and the extent of impacts which a particular site, locality, community, environment or wider area of mineral working can reasonably be expected to tolerate over a particular or proposed period. With respect to an individual site, the effect of all relevant impacts (i.e. of noise, dust, traffic, on landscape etc.) should be considered objectively. Impacts that are acceptable individually should not be regarded as unacceptable in combination without a proper assessment. MPAs should also have regard where relevant to cumulative impacts of simultaneous and/or successive working of a number of sites in a wider area of commercially-viable deposits. These may affect communities and localities over an extended period, depending on the nature, age and size of the site(s) (see paragraphs 24–29).	✓	✓	✓	✓	✓
13	Other development plan policies should ensure that development other than mineral extraction does not encroach on existing mineral operations, thus subjecting that development to a level of environmental impact that may be unacceptable and leading to complaints about the adequacy of planning conditions for the mineral operation concerned.					
14	Before applications are submitted to an MPA for determination, developers should discuss their proposals with the relevant local authorities and any other organisations whose interests may be affected by the proposed development. They should consult the Environment Agency and/or the local authority as regulator in respect of any pollution control requirements. Issues such as noise, traffic, dust, blasting, drainage, access arrangements, working methods, pollution control, landscape, restoration, after-use and stability should be discussed with the appropriate bodies prior to making an application. Developers should consult the Environment Agency to evaluate the hydrological, chemical and ecological impact of any workings on groundwater and surface water supplies.					
	MPAs and developers and their advisers should have regard to the general advice on the use of planning conditions in DOE Circular 11/95 The Use of Conditions in Planning Permission, the advice on planning conditions specific to mineral permissions in Minerals Planning Guidance Note 2 (MPG2): Applications, Permissions and Conditions (1998) and the advice on planning obligations in DETR Circular 01/97 Planning Obligations and any subsequent advice that may be issued which updates and revises these documents.					
	MPAs should ensure planning conditions are enforceable. They must be precise, capable of being monitored (infringements must be detectable), defined sufficiently for breaches to be provable, necessary, relevant to planning and to the development, and reasonable. The two principal types are:					

Paragraph	MPS2 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	• performance requirements; and • the use of specific ameliorative measures.					
21	Performance Requirements Effective planning requires judgements based upon local circumstances and local objectives. MPAs should set out measurable performance requirements, such as noise or vibration limits, that make clear to operators what is expected of them so they can make their own decisions on the most cost effective way of meeting those criteria, while allowing outcomes to be monitored. MPAs should not specify methods for securing compliance that could inadvertently and unreasonably prejudice the flexibility of the operator's working methods and profitability. Performance requirements should usually be designed to: • achieve a minimum environmental quality; • limit degradation of the environment; and • encourage improvement.	✘	✘	✘	✘	✘
	MPAs should also have regard to the possibility in some situations of requiring the operator to provide accessible monitoring systems, and making audited reporting by the operator (e.g. under an EMS), a condition of the permission. Where appropriate, MPAs and operators should seek to reach planning agreements with owners of sensitive properties to ensure access for monitoring purposes.					
	Amelioration Measures These should be specified as planning conditions to mitigate adverse effects where there is difficulty in defining a performance criterion which can be readily monitored and enforced.					
	MPAs should ensure that the adverse effects of mineral working on neighbouring communities are minimised.					
	Residents living close to mineral workings may be exposed to a number of environmental effects. MPAs must take particular care in respect of any conditions they attach to a grant of permission for working in proximity to communities…Dialogue should take place between MPAs, EHAs, operators and other stakeholders, especially in the local community, to determine appropriate mitigating measures, where these are feasible and would, if applied, allow the development to proceed.					
	The programme of work and/or the location of plant within the mineral working should take account of the proximity to occupied properties, as well as legitimate operational considerations. A programme of work should be agreed which takes account, as far as is practicable, of the potential impacts on the local community over the expected duration of operations.					
	In such cases, MPAs should consider the need to require adequate separation distances. MPAs should require a distance that is effective but reasonable, taking into account: • the nature of the mineral extraction activity (including its duration); • the need to avoid undue sterilisation of mineral resources, location and topography; • the characteristics of the various environmental effects likely to arise; and the various amelioration measures that can be applied. Working in proximity to residential property may be necessary where there are clear, specific achievable objectives such as the removal of instability and preparing land for subsequent development. Such working should be for a limited and specified period, without scope for extension.					
	In these circumstances, the MPA should consider both the need for long-term planning to avoid unnecessary sterilisation of resources, and how the combined impacts at individual sites and the cumulative impacts of further working of the mineral in a particular area can be reconciled with the need to protect localities and communities from unacceptable consequences of that working (e.g. by the number and timing of permissions, the phasing of workings and restoration, and the attachment of conditions to mitigate impacts).					
	Meanwhile the First Secretary of State looks to all LPAs and to mineral operators to follow the policies it sets out. They should ensure that the environmental impacts of mineral workings are minimised and controlled, and foster good community relations between mineral developers and operators and those living close to mineral workings.					

Paragraph	MPS2 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	MPS2: Annex 1: Dust					
	In formulating plans for mineral extraction or related activity and appraising mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused. The Government looks to the minerals industry to keep dust emissions at a level that reflects high environmental standards and to work for continuous improvement based on best available techniques (BAT).					
	Planning conditions on dust should not duplicate controls placed on the developer under the relevant pollution control regime.					
	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action, and MPAs should take due account of this in their decisions on individual applications. MPAs and operators should liaise with the relevant pollution control bodies (i.e. the Environment Agency and Local Authority (LA) Environmental Health Departments) in considering and making decisions on individual applications.					
	The key planning principle is that dust emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should include appropriate proposals for the control and/or mitigation of dust emissions. Those making development proposals should carry out an appropriate dust assessment study (see Appendix 1C), and MPAs should consider the results of such a study to: • establish baseline conditions of the existing dust climate around the site of the proposed operations; • identify site activities that could lead to dust emission without mitigation; • identify site parameters which may increase potential impacts from dust; • recommend mitigation measures, including modification of site design; and • make proposals to monitor and report dust emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.					
	For the meantime, LAs should use the objective to assist in their longer-term planning.					
	When PM10 impact is found to be significant in planning terms but, on balance, does not merit refusal of an application, procedures to monitor and control PM10 should be adopted.					
	Because the activities identified are common to all mineral sites, the Government considers that the research recommendations should be extended to cover all types of mineral workings. In doing so, it recognises that the research was specific to opencast coal sites, which involve significantly more earthmoving than most other mineral workings. The materials excavated also vary with the mineral being worked. In addition, certain quarry processes are controlled under Part I of the EPA 1990 (see Secretary of State's Guidance – Quarry Processes PG3/8/96, DOE 1996) and now, by the PPC Regulations, and it would be for the pollution control system to control dust emissions from these. These factors need to be incorporated into the assessment of potential impact from PM10.					
	The potential impacts of opencast and other mineral activities on particular sites should be highlighted at the scoping stage of a planning application (see Appendix 1C). This should identify any special requirements for the environmental impact assessment (EIA). The likely number and frequency of predicted exceedences of the AQOs, together with the proximity of operations to residential property and other sensitive uses should constitute a major part of the EIA and the weight this should be given in balancing the benefits of the site against potential impacts. The Arup research (see paragraph 1.2) defined 'remote' as more than 1000m from any residential property or sensitive use (see Table 1A2 in Appendix 1A). The Newcastle research also identifies 1000m as an adequate cut-off point for considering whether additional measures to control PM10 should apply. In deciding a cut-off point for individual proposals, MPAs should also consider whether the topography, the nature of the landscape, the respective location of the site and the nearest residential property or other sensitive use in relation to the prevailing wind direction and visibility may justify the distance being tailored to local circumstances, and hence whether a greater or lesser distance may be justified.					
	If within a site the actual source of emission (e.g. the haul roads, crushers, stockpiles etc.) is within 1000m of any residential property or other sensitive use, then a further assessment should examine the likely impacts and the weight they should be given in the decision making process.					

Paragraph	MPS2 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	Previously-measured data should be used in the first instance. Where relevant data is not available, site-related monitoring may occasionally need to be undertaken. The length of monitoring period, the methodology, the number of observations and different weather conditions should be carefully considered (see paragraph 1.9: detailed guidance on monitoring is provided in the LA's Technical Guidance on Review and Assessment (LAQM.TG(03)).					
	MPAs should set out in their local or minerals development documents (or in their mineral plans where these are still in preparation) their policies on dust from surface mineral operations. Plans and policies should contain guidance on those considerations related to dust emissions and control that will be taken into account in assessing planning applications, whilst recognising the range of control and mitigation measures available, including those under Part I of the EPA 1990. They should outline the criteria against which they will assess the environmental acceptability of the expected dust emissions from a proposed surface mineral operation or review the conditions on existing planning permissions. Other mineral policies relevant to the general mitigation of environmental effects and good practices are also likely to be relevant to the control and mitigation of dust including those relating to separation distances, landscaping and screening.	✘	✘	✓	✓	✘
	When considering applications for new mineral development or reviewing conditions on existing permissions, MPAs should have regard to the environmental acceptability of the likely dust emissions, including the cumulative impact at residential properties and on other sensitive uses. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development, together with proposals for appropriate control or mitigation.					
	The control and mitigation of dust (as with other environmental impacts) should be discussed between the mineral operator and the MPA and the LA Environmental Health Department before an application is submitted. This will ensure that all parties are fully aware of all the issues and avoid delays in processing the application.					
	MPAs and mineral operators should ensure appropriate consultations and effective liaison with all stakeholders, including statutory consultees and the local communities potentially affected by dust emissions. In particular, they should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned, as the regulator for quarry processes under the EPA 1990.					
	MPAs should assess the findings from a dust assessment study carried out by the applicant (see Appendix 1C) when determining planning applications or when considering conditions to attach to planning permissions. Pre-planning discussions should have addressed the principal matters relating to the design and layout of the site and these should be reflected in the plans and details of workings.					
	MPAs should consult the EHO for the area on the effects of dust emissions and the adequacy of proposed control and mitigation measures. Where the effects of dust emissions cannot be adequately controlled or mitigated, permission should be refused. MPAs should confirm the residential properties and other sensitive uses that might be affected and the effects of the proposals on them. MPAs should consider the need for, timing, length and frequency of temporary, dusty activities that are outside normal operations, but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.					
	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way as to minimise dust emissions at the source and thereby to control them to acceptable levels. Planning conditions should not duplicate or conflict with any requirements imposed on quarry processes under Part I of the EPA 1990. MPAs should seek to identify the most appropriate control measures to address specific potential dust problems, and attach planning conditions to consents which are precise and unambiguous. The wording of the condition should make it clear as to when and where the control, or mitigation of dust, is necessary. Conditions should be worded in such a way that contraventions are easy to identify and enforcement action can be readily undertaken if necessary.					
	Planning conditions that seek to mitigate dust through the use of water bowsers or sprays are frequently used by LAs, especially with regard to haul roads. Wherever possible, they should be specific about where and when water bowsers or sprays should be used. The condition could also specify that a chemical dust suppressant or a wetting agent be added to improve dust control. These sorts of condition require liaison with the relevant statutory consultee, in this case the Environment Agency.					
	The Government looks to the minerals industries to keep dust emissions at a level that reflects the highest environmental standards, to work for continuous improvement based on BATs and to reflect the principles set out in this Annex in framing proposals for new development and in reviews of conditions. It expects MPAs to have regard to the principles of this Annex in considering the impacts of dust on the environment and the local community in the Minerals Local Plan (and in future local and minerals development frameworks), and in determining applications and reviewing conditions on existing permissions.					

Paragraph	MPS2 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	MPS2: Annex 2: Noise					
2.1	In formulating plans for mineral extraction or related activity and designing mitigation strategies, MPAs should consider all the effects on the surrounding environment and communities. Where these effects cannot be adequately controlled or mitigated, planning permission should be refused.	✓	✘	✓	✓	✓
2.2	The Government looks to the minerals industry to keep noise emissions to a level that reflects the highest environmental standards and to work for continuous improvement. Its policy is to secure reduced noise emissions in both urban and non-urban areas and at noise-sensitive areas and properties…MPAs and others concerned with mineral development should have regard to the national noise strategy, on which the Department for the Environment, Food and Rural Affairs (Defra) consulted in 2001. This aims to map the main sources and areas of noise in order to identify tranquil areas that are to form a national resource, to comply with EC Directive (2002/49/EC) Assessment and Management of Environmental Noise.					
2.3	Most noise from mineral operations is created by equipment used for extraction and processing. MPAs and mineral operators should have regard to EC Directives 98/37/EC ('The Machinery Safety Directive') and 86/662/EC (Limitation of Noise Emitted by Hydraulic Excavators, Rope-operated Excavators, Dozers, Loaders and Excavator-loaders), which seek to reduce noise emissions from mobile plant and dump trucks. These do not apply to plant with a power rating in excess of 500kW or to a fixed plant. A proposed Directive (Noise Emission in the Environment for Equipment for Use Out of Doors), which is likely to come into force in 2005, indicates a further reduction in noise emissions for a range of tracked and wheeled plant. MPAs should be aware of the need to take account of this Directive when considering new applications and reviewing existing permissions after its implementation date. The Government will consider the need for appropriate supplementary guidance on this in due course.					
2.4	Planning conditions on noise should not duplicate controls placed on the developer under the relevant pollution control regime					
2.6	However, the Government expects operators to make proposals that are environmentally acceptable from the outset rather than relying on retrospective action and except that MPAs will take due account of this in their decisions on individual applications.					
2.7	The key planning principle is that noise emissions should, as far as possible, be controlled, mitigated or removed at source. Proposals for mineral working operations should, therefore include appropriate proposals for the control or mitigation of noise emissions. Those making development proposals and planning authorities considering such proposals should, therefore: consider the main characteristics of the production process and its environs, including the location of noise-sensitive properties; make and consider proposals to minimise, mitigate or remove noise emissions at the source using best available techniques (BAT) in accordance with the European Commission's BAT Reference Documents, taking account of the control of some quarry processes under the PPC Regulations; assess the existing noise climate around the site of the proposed operations, including background noise levels at nearby noise-sensitive properties; estimate the likely future noise from the development and its impact on the neighbourhood of the proposed operations; monitor noise emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.					
2.9	Emissions assessments should identify all sources of noise and, for each source, consider the proposed operating locations, procedures, schedules and duration of work for the life of the operation. They should consider what emissions are likely to arise and indicate how and where efforts have been made to control, mitigate or remove these at source. The level and character of the existing noise environment and the location of noise-sensitive properties will enable the necessary noise level goals to be incorporated in the design of proposed operations. Monitoring is required to compare changes in noise level and character caused by the operation to the design goals and to manage them in order to achieve those goals. There must be effective liaison with the affected community, and complaints should be dealt with promptly.					
2.10	MPAs should set out in their local development documents, policies on noise from surface mineral operations. They should outline the criteria against which they will assess the environmental acceptability of the expected noise emissions from a proposed surface mineral operation, or in reviewing the conditions on existing planning permissions. They should set out the noise limits they will apply in principle and any flexibility entailed in their application. The minerals (or successor) plan should also indicate the extent of technical information required in support of an application.	✘	✘	✓	✓	✘
2.11	In identifying areas of search and/or proposed sites for mineral working, MPAs should take account of any information on the existing local noise climate, particularly in areas of tranquillity that should be preserved as part of the national resource. For existing mineral operations, whether or not currently subject to conditions relating to noise, MPAs should consider whether the introduction of buffer zones to separate the mineral					

Paragraph	MPS2 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	operation from existing and possible future noise-sensitive development could be helpful.					
2.12	When considering applications for new development or reviewing conditions on existing planning permissions, MPAs should have regard to the environmental acceptability of the likely noise emissions, including the cumulative impact at noise-sensitive properties. Mineral operators should provide sufficient information to enable a full assessment to be made of the effects of the development together with proposals for appropriate control or mitigation.					
2.13	Discussions on the issues relating to noise (and other environmental impacts) should take place between the mineral operator and the MPA and the local authority (LA) environmental health department before an application is submitted. Developers should also consult the Environment Agency or the LA as the regulator under the PPC Regulations.					
2.14	MPAs should ensure that operators are aware of the need for and provide all the required technical information. They should seek the technical advice of, and preferably involve in the pre-application discussions, the environmental health officers (EHOs) of the area concerned alongside their own expert advisers. MPAs and operators should ensure that there are appropriate consultations and effective liaison with the community likely to be affected by noise emissions.					
2.15	Where an EIA is required (DETR Circular 02/99 Environmental Impact Assessment), it should identify the actual working noise emissions from all equipment to be used on site, having regard to established good practice. It should establish the threshold at which significant effects from noise emissions will be likely in or near environmentally-sensitive locations, and demonstrate that emissions can be successfully maintained below this threshold. Sensitive locations include sites carrying national and international environmental designations. The significance of effects from noise should be considered in the context of existing development. The additional impacts of site-attributable noise emissions at noise-sensitive properties should be established.					
2.16	When considering applications, MPAs should ensure that operators have provided the required technical information and considered all reasonable options to minimise noise at source. In the light of the existing noise climate of the locality, they should consider the cumulative effects of noise emissions. MPAs should consult the EHO, as the pollution control regulator for the area, and other relevant stakeholders (e.g. English Nature for sites designated for nature conservation value) on the effects of noise emissions, and the adequacy of proposed control or mitigation measures. Where the effects of noise emissions cannot be adequately controlled or mitigated, permission should be refused.					
2.17	When considering granting permission, MPAs should establish what noise-reduction practices will be used and what their effects will be. They should identify all noise-sensitive properties that might be affected and what the effects of the proposals will be on them. MPAs should consider the need for, timing, length and frequency of temporary noisy activities that are outside normal operations but which can bring long-term benefits to local residents and those using the area, such as the construction of baffle mounds.					
2.18	Where appropriate, planning conditions should be used to ensure that mineral operations are carried out in such a way that noise emissions are minimised at the source and thereby controlled to acceptable levels.					
2.19	Planning conditions should be used to apply absolute controls on noise emissions with limits normally being set at particular noise-sensitive properties (the terms used are defined in Appendix 2A). This enables the effect of noise to be related most directly to its impact on local people. In some circumstances, however, it might be more appropriate to set the limits at the site boundary or some other point. Subject to a maximum of 55dB(A)LAeq,1h (free field), MPAs should aim to establish a noise limit at the noise-sensitive property that does not exceed the background level by more than 10dB(A). It is recognised, however, that this will in many circumstances, be difficult to achieve without imposing unreasonable burdens on the mineral operator. In such cases, the limit set should be as near that level as practicable during normal working hours (0700-1900) and should not exceed 55dB(A) LAeq,1h (free field). Evening (1900-2200) limits should not exceed background level by more than 10dB(A) and night-time limits should not exceed 42dB(A) LAeq,1h (free field) at noise-sensitive dwellings.Where tonal noise contributes significantly to the total site noise, it may be appropriate to set specific limits for this element. Peak or impulsive noise, which may include some reversing bleepers, may also require separate limits that are independent of background noise — e.g. Lmax in specific octave or third-octave bands — and should not be allowed to occur regularly at night.					
2.20	Increased temporary daytime noise limits of up to 70dB(A) LAeq1h (free field) for periods of up to 8 weeks in a year at specified noise-sensitive properties should be considered to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this will bring longer-term environmental benefits to the site or its environs. Where work is likely to take longer than 8 weeks, a lower limit over a longer period should be considered. In some wholly exceptional cases, where there is no viable alternative, a higher limit for a very limited period may be appropriate in order to attain the environmental benefits. Within this framework, the 70 dB(A) LAeq1h (free field) limit referred to above should be regarded as the normal maximum. LAs should look to operators to make every effort to deliver temporary works at a lower level					

Paragraph	MPS2 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	of noise impact. Operators should seek ways of minimising noisier activities and the noise emissions from them when designing the layout and sequencing of temporary operations, and should liaise with local residents prior to such operations taking place.					
2.21	Conditions on planning permissions should identify the noise-sensitive properties at which the noise limits are set, including the relative sensitivity to noise, which may result in different limits for different types of property, and establish a scheme of monitoring that identifies how, where and when noise is to be measured, who should be responsible and how the results will be assessed and used. Alternatively, a condition should be attached requiring a scheme of compliance noise monitoring to be submitted to and approved by the MPA.Where necessary, the MPA should seek to use Agreements under Section 106 of the Town and Country Planning Act 1990, as amended, to ensure access to noise-sensitive sites for monitoring purposes. Conditions should also be used to secure effective procedures for dealing with complaints. Planning obligations can help to ensure continued effective liaison with the local community and others affected by noise emissions.					
2.22	Monitoring, in accordance with an agreed scheme, should normally be carried out in the free field at noise-sensitive properties and should pick up all noise from static and mobile sources that could affect the property. Where monitoring has to be conducted near the façade of a building, the microphone should be located 1m from the façade at a height of 1.2–1.5m above the ground and a 3dB façade reflection correction should be applied. If monitoring has to be other than at the noise-sensitive property, the noise limit must be converted into equivalent noise limits at the monitoring points using the noise-prediction technique in Part 1 of BS5228 Noise and Vibration Control on Construction and Open Sites (1997).					
2.23	Equipment used for monitoring should correspond to that specified in BS-EN 61672-1 Electroacoustics, Sound Level Meters, Specifications (2003), capable of measurement in LAeq,1h and be calibrated before and after use. Where it is not possible by use of the pause button to exclude extraneous noise not directly attributable to the operation being monitored, an appropriate allowance should be made. Guidance on this is contained in BS4142 Method of Rating Industrial Noise Affecting Mixed Residential and Industrial Areas (1997).					
2.24	Monitoring should be undertaken during normal production working hours and should avoid meal times and periods of plant maintenance or breakdown. Measurements should ideally be taken in calm conditions or where there is a component of wind blowing from the site towards the measurement location. However, at many sites, such conditions may be rare. BS4142 suggests that measurement should be avoided in Conditions of wind speeds greater than 5m/sec, rain and temperatures less than 3°C. BS4142 also requires that a record be kept of weather conditions prevailing during all measurements. Where noise monitoring is undertaken when weather conditions are not ideal and noise levels appear to be of concern, the impact of weather conditions on ambient noise should be considered as well as noise propagation from the site.					
2.25	The detailed requirements for monitoring (location, period and frequency) should be decided on a site-specific basis as part of the monitoring scheme, taking account of any monitoring required under the terms of any authorisation for quarry processes under the PPC Regulations. Unnecessarily onerous requirements should be avoided. Conditions should require operators to report periodically to the MPA on the results of monitoring and to inform it as soon as possible if there is evidence of the limits being breached, including an explanation and a statement of action to remedy it. MPAs and/or EHOs should carry out periodic checks of permitted sites in their areas, particularly if complaints are received, and inform the operator and complainants of the results. If monitoring demonstrates that noise limits continue to be exceeded,MPAs should consider what enforcement action would be appropriate.					
2.26	The Government looks to the minerals industries to keep noise emissions at or below the levels set out in this Annex, and to use BAT to reduce the impact of noise from their operations. It expects MPAs to have regard to the principles of this Annex in considering the impacts of noise on the environment and the local community in the minerals and waste development plans, the development documents that will succeed these and in determining applications and reviewing conditions on existing permissions.					

MPG3: COAL MINING AND COLLIERY SPOIL DISPOSAL

Paragraph	MPG3 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
8	National Land Use Policy Considerations In applying the principles of sustainable development to coal extraction, whether opencast or deep-mine, and to colliery spoil disposal, the Government believes there should normally be a presumption against development unless the proposal would meet the following tests: i. Is the proposal environmentally acceptable, or can it be made so by planning conditions or obligations? ii. If not, does it provide local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission? iii. In National Parks and AONBs, proposals must also meet the additional tests set out in paragraphs 28 and 29 below. iv. Proposals within or likely to affect and National Nature Reserves (NNRs) must meet the additional tests set out in paragraphs 30 and 31. v. Proposals within the Green Belt must meet the additional test in paragraph 36 below. MPAs should ensure that this general approach is incorporated into their development plan policies as soon as possible. The Government recognises that the costs and benefits of an opencast proposal can best be assessed by the communities and local authorities who know the area best and are most directly affected. Accordingly the Government takes the view that, subject always to local plan procedures, normal rights of appeal and the provisions of this guidance, MPAs' assessments of the environmental acceptability or otherwise of individual proposals should normally prevail.	✓		✓	✘	
11	Formulation of Policies and Plans Within the overall framework set out in paragraph 8 above, policies and proposals in the development plan should be consistent with national policies and strategic and regional planning guidance.					
12	Policies and proposals should take into account the principal impacts of coal working and spoil disposal, both separately and together, such as visual intrusion, water pollution, air pollution, noise, dust and traffic and the level of activity that a particular locality and its community can reasonably be expected to tolerate over a particular period, as well as the potential benefits such as job opportunities and the scope for landscape and amenity improvements through working and subsequent restoration. Equally, other development plan policies should ensure that provision for other development does not unnecessarily sterilise coal resources, nor allow development to encroach on existing mineral operations and thus increase the level of environmental impact to an unacceptable level.	✓		✓	✓	
13	The Coal Authority and MPAs should liaise closely at an early stage of the development and mineral planning process. The Coal Authority should also be approached by MPAs in the consideration of individual planning applications…Coal operators should engage in full and open dialogue with MPAs and provide them with information on the extent of their known reserves and forward plans. MPAs should provide operators with information on the planning and environmental constraints within the authority area…For existing deep and drift mines consented under the Town and Country Planning (General Permitted Development) Order 1995 ("the GPDO") operators should also supply information on their forward mining plans in accordance with the DTI Code of Practice.					
14	Scope for Environmental Improvements Policies should give priority to proposals which will bring about environmental improvements.	✓		✓	✓	
15	Safeguarding of existing businesses and opportunities for future investment Policies should be explicit that where there is material evidence that coal extraction and related development would have an adverse effect on efforts to attract or retain investment in an area, this is a material consideration which should be taken into account in deciding planning applications.	✘		✘	✓	
16	Policies should make provision for proposals where extraction of coal from a site would facilitate the efficient and economic working of other mineral deposits on that site in an environmentally acceptable way…opencast sites provide one of the few viable sources of fireclay and every opportunity to produce it from a proposed site should be examined provided that the site can be properly restored and the overall proposal meets the tests in paragraph 8.	✓		✘	✓	

Paragraph	MPG3 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
17	Comprehensive working Where a forward programme of potential sites has been agreed in line with paragraph 13, policies should provide for proposals which would facilitate the comprehensive working of the coal deposits in a locality, subject to planning and environmental constraints and the acceptability of individual proposals in accordance with paragraph 8.	✘		✘	✘	
18	Cumulative Impact Some areas have been subjected to successive opencast developments over a number of years. Policies should make clear that, where appropriate, the cumulative impact of a proposed opencast development on the community and the environment will be taken into account.	✓		✓	✘	
19	Extension to sites Developers should provide the MPA with as much information as they have available on the extent of the resources in a proposed site, and the way in which they propose to work them, before or at the time a planning application is made to avoid subsequent unplanned applications for site extensions in area or depth… Policies should therefore make clear that any proposal to extend an opencast site, in area or depth, will have to meet the criteria in paragraph 8. Where the proposal is likely to have significant effects on the environment an Environmental Impact Assessment should be required.	✘		✓	✓	
20	Repeat applications Section 70A of the 1990 Act (as inserted by section 17 of the 1991 Act) provides that an MPA may decline to determine a planning application if it is made within two years of the Secretary of State refusing a similar application, either on call-in or appeal, and there has been no material change in circumstances since that decision. In addition there should be a general presumption against approving applications for development of a site, or extensions to an existing site, where a similar application has been refused previously unless there has been a material change in circumstances since that decision.	✘		✘	✘	
21	Commencement and completion of development Policies should make clear that, if planning permission is granted, conditions will be imposed specifying the date by which development must be begun (or the planning permission will lapse) and dates for the completion of coal extraction, restoration and aftercare.	✘		✘	✘	
22	Sterilisation In principle, it is desirable to secure coal extraction prior to new permanent development above coal reserves. Policies should therefore take into account the benefit of avoiding sterilisation of coal reserves by other forms of development, within a reasonable timescale and in an environmentally acceptable way, provided the proposal can meet the tests in paragraph 8 above.	✓		✓	✓	
23	Deep mines and drift mines In general, proposals for drift mines raise similar issues to those for deep mines. The impact is largely determined by the size, location and duration of the operations. Policies should deal with the principal impacts arising from ancillary surface development at underground mines, for example: visual intrusion, noise, dust, traffic, the location and design of buildings and storage areas, coal washing and lagoons, and site restoration; and with the potential effects of subsidence, including the potential hazard of old mine workings, the treatment and pumping of underground water, monitoring and preventive measures for potential gas emissions; and the method of disposal of colliery spoil.	✓		✘	✓	
24	Colliery spoil ..continuity of production at existing deep and drift mines in part depends upon the availability of land for spoil disposal. Plans should therefore set out policies which make provision for this.	✘		✓	✓	
25	Policies should include consideration of viable alternatives to local tipping where that is precluded by environmental constraints or where there is a reasonable expectation that environmental gains will outweigh any increased costs, and should encourage use of the evaluative framework ("Procedural Manual Evaluative Framework: Assessment of Alternative Colliery Spoil Disposal Options" HMSO 1990).					
26	The coal industry should make every effort to keep spoil production to a minimum and to seek ways of reducing the environmental impact of its disposal, including flexibility in local arrangements for disposal; continued efforts to improve restoration techniques; and, by seeking opportunities for the recycling of spoil for use as secondary aggregates (see Annex A). It should supply current and projected spoil production figures to the MPA at an early stage so that a forward strategy on spoil disposal can be compiled for the whole area, and should cooperate in the discussion					

Paragraph	MPG3 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	and preparation of forward programmes.					
27	Nationally designated and other sensitive areas Development plans should also contain policies, where relevant, for the protection of National Parks, AONBs, SSSIs, NNRs, ancient monuments, archaeological and other cultural interests, agricultural land and Green Belt. Advice on the national policies that apply is set out below.					
28	PPG7 - "The Countryside - Environmental Quality and Economic and Social Development" (February 1997) sets out in detail Government planning policies for all forms of development in National Parks and AONBs. The Government considers that major developments should not take place in these areas, and the New Forest and the Norfolk and Suffolk Broads, save in exceptional circumstances. Because of the serious impact that minerals developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all minerals development should be demonstrated to be in the public interest before being allowed to proceed.					
29	National Parks and AONBs Consideration of minerals applications in such areas should normally include an assessment of: i. the need for the development, in terms of national considerations of mineral supply; ii. the impact of permitting the development, or refusing it, on the local economy; iii. whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way; iv. any detrimental effect of the proposals on the environment and landscape and the extent to which that should be moderated; and iv. in the case of extensions to existing mines, the extent to which the proposal would achieve an enhancement to the local landscape.					
30	SSSIs and NNRs Mineral proposals within or likely to affect SSSIs should be the subject of the most rigorous examination. When considering such proposals planning authorities are required to consult EN on such proposals and should take account of the advice in PPG9 - "Nature Conservation".					
32	Other environmentally important areas Planning authorities may designate other environmentally significant areas in their development plans, such as special landscape areas, or areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not be as high as that to be given to the nationally designated areas referred to above.					
33	The historic environment …The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features. When determining applications for extraction, MPAs should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings.					
34	…The protection of the historic environment, whether individual listed buildings, conservation areas or the wider historic landscape will need to be taken fully into account both in the formulation of authorities' planning policies and in development control.					
35	Agricultural land The Government's policy, as set out in PPG7, is that within the principles of sustainable development, the best and most versatile agricultural land (defined as land in Grades 1, 2 and 3a) is a national resource for the future, and considerable weight should be attached to the protection of such land because of its special importance when considering the allocation of land for minerals development, and deciding any application for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects……where the best and most versatile agricultural land is involved the restoration and aftercare steps should enable the retention of its longer term potential as a high quality agricultural resource.					
36	Green Belt Proposals for coal extraction and spoil disposal may also arise within Green Belts. The Government's policy is set out in Planning Policy					

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	Guidance 2: Green Belts (PPG2). Applications to extract coal or deposit spoil in the Green Belt should be tested against the highest environmental standards. If permission is granted, stringent conditions should be attached to ensure the site is well operated and restored to the highest standards.					
37	Mineral Local Plans and Part 2 of UDPs Structure Plans and Part 1 of UDPs should set out strategic policies. Mineral Local Plans and Part 2 of UDPs should carry forward those policies and set out clear criteria against which individual proposals will be assessed. These criteria should include consideration of: - • the effects on local amenity; landscape; features of archaeological, architectural, historic or natural interest; and, agriculture; • the effect on hydrology or hydrogeology; • the environmental impacts of transportation of minerals and waste; • the cumulative impact on communities in the locality of proposals; • the effect on efforts to attract or retain investment in the area; • any environmental improvements or other material planning benefits to the community likely to result from the proposals; • the employment and other economic effects of the proposals; • the avoidance of sterilisation of mineral resources; • the efficient and economic working of other mineral deposits in an environmentally acceptable way; • the avoidance of unplanned piecemeal working of deposits; and, • where development is acceptable in principle, the range of conditions likely to be needed to mitigate or control any potential adverse effects. MPAs may also wish to have regard to the Countryside Commissions' advice on landscape and countryside issues set out in their publication "Opencast coal mining: advice on landscape and countryside issues" (CCP434, 1993) and to English Heritage/Countryside Commission/English Nature's published guidance "Conservation Issues in Strategic Plans" and "Conservation Issues in Local Plans".	✓		✓	✓	
38	Minerals Local Plans and Part 2 of UDPs should also indicate any areas where coal extraction and the disposal of colliery spoil may be acceptable in principle subject to development control criteria being met in any particular case, as well as those areas where working or disposal is unlikely to be acceptable or where coal resources are to be safeguarded for future working…	✓		✓	✘	
39	Handling Specific Development Proposals Proposals for coal extraction and spoil disposal can give rise to considerable concern because of the potential environmental impact operations can have on a locality. Operators and MPAs should therefore have regard to the code of practice prepared jointly by the then County Planning Officers' Society and COALPRO ("Planning for Quality - A Code of Practice", September 1996).					
40	Before applications are submitted to the MPA for determination, and as early as possible, operators should explain fully the nature of their proposals, indicating the ways in which they intend to deal with the environmental factors that will arise…Technical issues such as drainage, access arrangements, working methods, pollution control, restoration, after-use and stability should also have been discussed with the appropriate bodies.					
41	There is a statutory duty to consult with and obtain approval from the Environment Agency with regard to the siting and condition of any spoil disposal to land.					
42	In all cases the MPA will need information about likely environmental effects as part of the material accompanying an application for planning permission. Operators should seek the MPA's views on the preparation of Environmental Statements (ES) appropriate to the scale of the proposal and the sensitivity of its location.					
43	Environmental Impact Assessment … Where proposals for mineral development are likely to have significant effects on the environment, applications will need to be subject to EIA					

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	under the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999 and an Environmental Statement (ES) prepared.					
44	…In any event, mineral applications in National Parks and AONBs should be subject to the most rigorous examination and EIA should always be required. Similar considerations apply to proposals which would affect SSSIs or other areas which have been designated nationally or internationally as requiring special consideration.					
45	Environmental duty In addition to any requirement for EIA, section 53 of the Coal Industry Act 1994 imposes an environmental duty on the coal industry. In formulating coal mining proposals requiring planning permission, operators are required to have regard to the desirability of the preservation of natural beauty, the conservation of flora and fauna and geological or physiographical features of special interest and the protection of sites, buildings, structures and objects of architectural, historic or archaeological interest; and, must formulate proposals for the adoption of measures to mitigate any adverse effect of the development on such matters. In considering coal mining proposals, MPAs must have regard to the extent to which the operator has complied with the duty.					
47	Post application consultations Following receipt of a planning application for coal extraction or spoil disposal, the MPA should undertake the consultations specified in the Town and Country Planning (General Development Procedure) Order 1995 ("the GDPO"). In addition, they should also consult MAFF where there is likely to be an agricultural afteruse. The Forestry Commission should be consulted where areas of forest are likely to be affected by the development or where forestry planting forms part of a reclamation scheme. The Countryside Commission should be invited to comment on any application which has a major impact on the landscape, Regional Parks, Country Parks, National Trails and Community Forests. MPAs should consider the likely effect on a National Nature Reserve, SSSI, or other area of ecological, geological or geomorphological importance, of any planning application at or in the vicinity of such a site, so as to decide whether or not to consult English Nature (EN). MPAs should bear in mind the possibility that certain developments may affect a site some distance away. Sites and Monuments Records (SMRs) should be consulted where proposals affect features of archaeological interest or the built heritage. SMRs will involve English Heritage as appropriate. English Heritage needs to be consulted directly on proposals which would affect Scheduled Monuments and grade I and II listed buildings.					
49	Consideration of applications MPAs will need to consider in detail the full range of social, community, economic and environmental issues that are relevant to the planning decision. For its part, the industry should demonstrate that it has addressed all potential adverse effects either by amending the proposals, or providing appropriate compensatory or mitigation measures when preparing planning applications. The industry should demonstrate that its proposals take all practicable steps to satisfy the environmental concerns on site operation and restoration. The objective must be to ensure that any adverse effects on local communities, environmental damage or loss of amenity caused by mineral working are kept to an acceptable level, and do not outweigh the benefits to the local community of proceeding with the development. Where material planning objections to a proposal outweigh any benefits to the local community then, as stated in paragraph 8(ii) above, planning permission should not normally be granted.					
50	Need and alternative sites or sources of supply Where the major argument advanced in support of an application to extract coal is that the need for the development outweighs the planning disadvantages inherent in it, the MPA should have regard to the possibility of meeting that need from alternative sites or sources of supply.					
51	Applicants should include a description of the main alternatives considered in their Environmental Statement.					
53	Consideration of impacts and conditions …In the meantime, the industry and MPAs should adopt the precautionary principle and ensure that proposals and developments do not result in unacceptable levels of airborne dust. Where planning permission is granted stringent conditions should be attached to control and monitor dust emissions. Further advice will be issued once the results of the research are known.					
54	… Meanwhile, and in any event, where planning permission for coal extraction or the disposal of colliery spoil is granted, the Secretary of State expects MPAs to impose planning conditions requiring the highest standards of operation, restoration and aftercare to ensure that any impacts on the environment or local amenity are minimised, and to ensure that compliance with those conditions is monitored and enforced. In that connection the industry can play its part by initiating annual independent environmental audits of operating sites and making the results freely					

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	available to the MPA, members of the public and other interested persons, either independently or as part of an individual company's accreditation under an environmental performance or monitoring system such as EMAS or ISO 14001…					
55	Planning Obligations … Where the environmental impacts of coal extraction or colliery spoil cannot be sufficiently mitigated, or controlled, by means of planning conditions alone, it may be appropriate for MPAs to seek planning obligations to ameliorate the harm or to secure relevant and legitimate local benefits which outweigh that harm, in line with paragraph 8 above. Community benefits, for instance, in the form of new community facilities or community trust funds may be proposed by the developer or suggested by the planning authority. However, any such benefits offered or sought should not be treated as material considerations unless they meet the tests set out in DOE Circular 1/97 - ie: i. they are necessary to make a proposal acceptable in land use planning terms; ii. they are relevant to planning; iii. they are directly related to the proposed development; iv. they are fairly and reasonably related in scale and kind to the proposed development; v. they are reasonable in all other respects.					
56	Restoration and aftercare Applications for extraction of coal or disposal of colliery spoil should include information which demonstrates that the site can be restored satisfactorily. The omission of such information is likely to delay determination of the application. If proposals for restoration are inadequate, unsatisfactory or impracticable, planning permission should not be granted. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.					
57	Proposals for restoration and aftercare of coal extraction and spoil disposal sites should form an important part of the information submitted with a planning application and in earlier informal discussions. This information should be sufficiently detailed for a realistic view to be taken of the after-use intended, including phasing of progressive restoration and the final landform and landscape intended. This should normally be agreed with the MPA in advance of planning permission being granted, after discussions with the district council, site operator, land owners, farming, local community and other relevant local interest groups (eg nature conservation).					
58	Aftercare proposals should also take account of the need to manage on-site and off-site drainage, and any creation of water features, including any advice from the Environment Agency who should be consulted, particularly when preparing any restoration and aftercare scheme where it is intended to impound or create an impoundment of water or create or divert a river or stream.					
59	At the time planning permission is granted, both the principles and, as far as possible, the details of restoration should be agreed - although in some cases it may be sensible for some details to be agreed at a later stage. The intended after-use must also be decided when planning permission is granted, but in the case of longer term sites the detailed aftercare programme may more appropriately be settled in a scheme agreed subsequently. Further advice is given in MPG7.					
60	In the cases where agriculture is the intended after-use, it is essential that site working, restoration and after-use should be considered thoroughly at the outset, and in full consultation with MAFF, environmental and other interests as appropriate. In cases where forestry is the intended after-use, consultations on its appropriateness and on aftercare requirements should be with the Forestry Commission.					
64	However, where the operator can demonstrate to the satisfaction of the MPA that they are covered by an established and properly funded industry guarantee scheme, which would adequately finance a programme of restoration and aftercare in the case of default by the operator, the Government considers that a bond should not be necessary.					
65	… In all cases, operators should ensure that sufficient finance is available to enable them to meet fully restoration and aftercare conditions. Equally, MPAs should have regard at all times to the need to avoid imposing costs on coal operators that are larger or longer than strictly required to meet best standards. In those cases where security funding or bonds are required, the sums should be released progressively as restoration proceeds.					

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66	Liaison Committees Should permission be granted, particularly for major developments, developers should aim to set up a liaison committee or advisory panel consisting of representatives of the developer, the contractor working the site, local authorities and members of the local community and other interested bodies (including EN where appropriate) to ensure that the local community has a full understanding of working practices and that the developer and contractor are fully aware of local community concerns.					
68	Nevertheless, the Government expects MPAs to determine applications expeditiously….Applicants should aim to provide authorities with all the information that is needed to determine the application, including in all normal cases an appropriate Environmental Statement covering all relevant issues. If the authority needs further information, every effort should be made to ensure that requests for its provision are comprehensive at the outset.					
Annex B	Planning and Pollution Control B3. Planning conditions should not seek to control through planning measures matters that are the proper concern of the pollution control authority, except where planning interests can be clearly distinguished. However, the winning and working of minerals is an operation which continues over a number of years and the "development" is not complete until the site has been worked out and restored. The MPA will therefore be concerned with the totality of the impact of the development on amenity and other land uses, whether or not part of the development is subject to pollution control. B4. Where processes prescribed for control under Part I of the Environmental Protection Act 1990 form part of the application for planning permission for coal extraction or colliery spoil disposal, material planning considerations may include the potential loss of amenity caused by pollution, and the MPA will need to take them into account in determining whether planning permission should be granted. MPAs should, where appropriate, impose planning conditions on any permission minimising such impacts. Such conditions must relate to land use planning considerations and may include conditions regulating such matters as noise, dust, hours of working etc where these are necessary to protect local amenity or other land uses. However, planning conditions should not duplicate pollution controls on prescribed processes. It is essential therefore that MPAs should consult the relevant pollution control authority at an early stage about the extent to which matters should be addressed through planning or pollution control mechanisms, and to provide the pollution control authority with an opportunity to comment on pollution control in respect of the development as a whole.					

MPG5: STABILITY IN SURFACE MINERAL WORKING AND TIPS

Paragraph	MPG5 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	This guidance advises that: - mineral planning authorities need to consider stability in relation to surface mineral workings and tips; - local planning authorities need to consider stability in relation to development in, on or near abandoned surface mineral workings and tips; and that - policies should outline the consideration which will be given to stability issues in considering mineral development and other development in, on or near to mineral workings and tips; - consideration of apparently unrelated issues may require consideration of the potential effects on the stability of excavated or tipped slopes; - where appropriate, planning applications and restoration/landscaping schemes should be accompanied by a design report prepared by a competent person which demonstrates that the perimeter slopes and any internal slopes remaining after restoration will remain stable.					
16	Development Plans When preparing minerals local plans, MPAs will need to consider the extent to which specific policies should be included to cover tip- and quarry-slope stability or whether this issue should be covered by supplementary guidance. This consideration should take account of the factors which might trigger particular concerns about stability, such as proximity to built development or infrastructure; knowledge of previous instability problems; the criteria to be used to define stand-off distances or clearances between quarry slopes or tips and the site boundary or third-party structures; and the requirement for final slopes and restoration to be compatible with stable slopes…	✘	✘	✓	✓	✘
17	In addition, policies in district-wide local plans should seek to ensure that land use is appropriate when considering development above or below abandoned quarry slopes and on or near to disused tips or back-filled workings. In particular, attention should be given to the possible need for stand-offs to protect neighbouring land or structures and/or for slope stabilisation measures. Where development is being proposed on back-filled workings, consideration will be needed of both the planning and Building Regulations requirements in respect of stability, as well as of the possibility of contamination arising imported waste…Any development planning briefs prepared for such sites should ensure that the issues of slope stability, differential settlement of quarry backfill and the likelihood of contamination and migration of contamination from the site are properly addressed.					
20	Applications for Mineral Workings and Review of Old Mineral Permissions Landscaping and restoration proposals should be consistent with the production and maintenance of safe and stable slopes.					
22	While the internal working slopes of quarries and tips are principally matters of concern to the operator and the HSE rather than for the MPA, the final perimeter slopes and restoration proposals have land-use implications, which need to be considered by the MPA. In order to do so it will need to be provided by the operator with an assessment and design of perimeter slopes and any internal slopes remaining after restoration to enable any potential for adverse effects due to instability to be minimised.					
24	Applications for new workings should be accompanied by an appraisal of slope stability issues based on existing information, which aims to: • identify any potential hazard to people and property and assess its significance; • establish the basis for reserve calculation; • identify any features which could adversely affect the stability of the working to enable basic quarry design to be undertaken.					
25	Where built development is the proposed after-use for back-filled workings, MPAs should impose conditions to secure appropriate deposition and compaction to allow that development to proceed without the need for further ground treatment.					
26	Applications for Development on or Near Abandoned Tips or Quarries Appraisals and assessments of excavated and tip slope stability should be carried out for the operator by a competent person, as defined in the Quarries Regulations 1999. The MPA is entitled to rely on such appraisals and assessments in considering the impact of stability on land use. The MPA should ensure that any changes to the applicants proposed method of working, which may be desirable for other reasons, are appraised and assessed by that competent person.					

Paragraph	MPG5 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
27	Conclusions Where development is proposed in or near the slopes of abandoned quarries or tips, local planning authorities should seek information from applicants in respect of stability reports prepared by a competent person. The layout of such development will need to be considered in relation to the stability of nearby slopes and the necessity for and feasibility of any necessary stabilisation measures. Development on back-filled workings and tips will also need to consider the potential effects of differential consolidation of the fill/tip material as well as any potential effects on slope stability. The detailed resolution in terms of specific foundation measures or ground treatment is, however, a matter for the building regulations.					

MPG7: THE RECLAMATION OF MINERAL WORKINGS

Paragraph	MPG7 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
8	Reclamation Policies in Development Plans Structure plans and Part 1 of UDPs should express in general terms the MPAs strategy for mineral working and related development taking into account national and regional policies. They should provide policy guidance to applicants including in general terms the need for restoration and aftercare of mineral workings.	✓	✓	✓	✓	✓
9	Minerals local plans (or minerals and waste local plans), district-wide local plans of the new unitary authorities (where authorised to include minerals and waste policies), and Part II of the UDP's provide an opportunity for local authorities to develop in detail the policies and plans for their area. They should provide policy guidance to applicants on appropriate uses of land within the plan areas. This should assist in the early identification of the most appropriate after-use for a mineral site.	✘	✘	✓	✓	✘
10	When drawing up their plans, local authorities should have regard to Government policies on land use.					
13	National Land Use Policies and Reclamation of Mineral Sites Agriculture: Where minerals underlie the best and most versatile agricultural land it is particularly important that restoration and aftercare preserve the long-term potential of the land as a national, high quality, agricultural resource.	✓	✘	✓	✓	✓
14	Government policy seeks also to encourage the diversification of the rural economy where this will not result in the significant loss of high quality agricultural land. Therefore whilst agriculture remains the most appropriate after-use for many mineral sites, other uses such as forestry and some forms of amenity including nature conservation (e.g. heathland or unimproved grassland), should also be considered on land which was originally in agricultural use. Where these alternatives are proposed on the best and most versatile agricultural land, the methods used in restoration and aftercare should enable the land to retain its longer-term capability to be farmed to its land classification potential, thus remaining a high quality agricultural resource for the future…	✓	✘	✘	✘	✓
15	Reclamation to non-agricultural uses does not mean that there can be any lessened commitment to high standards in the reclamation and recycling of land taken for mineral working, and they therefore should not be chosen because they are perceived as `easier options'. They require equal commitment by mineral operators, mineral planning authorities and any other parties involved to achieve high standards of implementation.					
18	Forestry Therefore, in the areas of the "Community Forests", the National Forest, and in preferred areas as identified in IFSs, structure plans and minerals local plans should give consideration to inclusion of policies for the after-use of mineral sites to forestry and amenity woodland.	✓	✘	✓	✓	✓
20	Landfilling of Surface Mineral Workings Unitary planning authorities should include waste policies in their unitary development plans.					
21	Waste local plans therefore need to take account of minerals local plans.					
22	Imposing Reclamation Conditions for New Permissions General Considerations In granting planning permission for mineral working, MPAs should always carefully consider the applicant's proposals for reclamation of the site, how and whether the proposals are likely to achieve the intended results and, therefore, how requirements to ensure satisfactory reclamation can be incorporated into appropriate planning conditions. It is equally important that the applicant should thoroughly understand, and make financial provision for, the responsibilities he will be taking on under the reclamation conditions likely to be imposed on a planning permission.					
24	Planning conditions for reclamation should normally be framed with the intended after-use in mind. However, separate planning permission is likely to be required for any after-use except: i. agriculture and forestry (excluded from the definition of development in section 55 of the 1990 Act),					

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	ii. uses which are included in the Town and Country Planning (General Permitted Development) Order 1995, and iii. nature conservation and informal recreation which do not involve substantial public use. Any application for development on a current or disused mineral working site which would conflict with or prejudice compliance with a restoration and aftercare condition imposed in respect of the mineral working will be dealt with by the MPA.					
25	Pre-Application Considerations The drawing up of practical proposals for site reclamation will require a careful site investigation by the potential mineral operator prior to the submission of an application. The outcome of the investigation should be reflected in the documentation submitted with the application.					
26	It is in the applicants interest to discuss working and reclamation proposals and possible planning conditions with the MPA, prior to formal submission of an application. These discussions should also involve the statutory consultees, the landowner, tenant and any other person with a relevant interest.					
27	To demonstrate that a site can be reclaimed to an acceptable standard and after-use, the applicant is advised to prepare, at the outset, a working plan which includes restoration proposals and is based upon findings from the site investigation. This should be in sufficient detail for the MPA and any statutory consultees to form a judgement as to its feasibility.					
28	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, they will need to be subject to an assessment of those effects under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988.					
29	Whether or not a formal environmental assessment is required, operators are advised to follow the general methodologies for the assessment of environmental effects in all applications. These provide the applicant with the opportunity to demonstrate, and the MPA to evaluate, for example, the practicality of the proposed after-use(s). Where there is doubt as to the practicality of proposals, the operator should discuss alternative solutions using the available information.					
30	Submission and Determination of Planning Applications Having received an application for planning permission, it is necessary for the MPA to notify or consult other interested parties before reaching a decision…MPAs are not required to consult external experts for advice on amenity use; but they may do so in appropriate cases.					
31	Policies and guidance in Minerals Local Plans, Part II of UDPs and other local plans should assist in these considerations.					
32	MPAs should thus have regard to the practicality of the proposal before them. The possibility that reclamation techniques may have improved in the intervening time must also be borne in mind.					
33	Drawing up Reclamation Conditions Where a permission is granted, therefore, the conditions should be drafted in such a way that, even if the interest of the mineral operator applying for permission is subsequently disposed of, the requirements for reclamation can still be fulfilled, whether by a new operator or in the case of default, by the land-owner. The general principle is that a MPA should take into account whether it is feasible to implement the applicant's reclamation proposals successfully.					
34	Planning conditions for reclamation should be specific to the proposed site and should normally be framed with the intended after-use in mind.					
35	Where possible, it is normally desirable to have 'progressive' or 'rolling' reclamation to minimise the area of land occupied at any one time by the mineral working, unless to do so would be likely to affect adversely the standard of reclamation achieved, or would be impractical having regard to the type of operation and nature of the site. Conditions for progressive reclamation normally limit the area taken for mineral working at any one time and relate it to the rate of restoration of earlier phases of the operation. It is, however, important that conditions permit a sufficient area of land to be stripped of soils in advance of mineral extraction to allow for wet years when soil stripping operations may be impracticable. It is not advisable to specify actual dates in conditions for phasing unless there are overriding reasons to do so.	✓	✓	✓	✓	✓

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36	For short-term workings it is usually appropriate to impose a detailed set of conditions at the time of granting planning permission. For longer-term workings, early agreement on the details of at least the later stages of reclamation may not be appropriate.					
37	For longer-term workings, it is also appropriate to agree at the outset outlines of requirements covering the main stages (e.g. filling, restoration and aftercare), together with detailed schemes for stripping and storage of soil materials. This must be sufficient to clearly demonstrate that the overall objectives of the scheme are practically achievable. Such workings should then normally require the submission of a detailed scheme or schemes for restoration and aftercare, for agreement, by some specific stage towards the end of the life of the permission. Sites where progressive reclamation is to be carried out can require submission of schemes for agreement from time to time as appropriate.					
38	Soil Handling and Storage For after-uses requiring the growth of vegetation, effective reclamation will depend on the appropriate identification and management of soil resources prior to and during work as well as in the later stages of restoration and aftercare. Soil resources in this context are taken to include any medium which is not contaminated and which has a realisable potential to permit plant root growth and to retain and provide water and nutrients. Planning conditions will normally prevent soil resources from being exported from the site. In addition they will usually require the separate stripping, storage (where necessary) and respreading in correct sequence of defined thicknesses of topsoil, subsoil, or any other soil-making materials. Some sites may contain considerable variations of soils within them, such as major textural differences, and it may be desirable to require separate stripping (and storage and restoration) of these materials. Such soil variations should have been identified in pre-application site surveys and provided for in the reclamation plan.	✓	✘	✘	✓	✓
40	Landform and Landscape In preparing a planning application for either a new site or any significant extension to an existing working, the applicant/operator should develop a site-specific landscape strategy, which includes: i. defining the key landscape opportunities and constraints; ii. considering potential directions of working, significant waste material locations, degrees of visual exposure etc; iii. identifying the need for additional screening during operations; iv. identifying proposed after-uses and preferred character for the restored landscape.					
42	Landscape and reclamation plans should address the impacts which mineral extraction can have on the existing landscape. These will include the working face and operations at the face, locations of waste tips, and haul roads.					
43	The intended final landform, gradients and drainage of a site should be designed and specified at the outset, with controls in planning conditions as appropriate. For many sites there may need to be some flexibility, and a continuation of the iterative design process, to take account of changes necessitated by operational, geological and mineral working safety demands. However, major planned final landform elements are not easily adjusted when extraction is almost complete, and modifications should not compromise the overall environmental acceptability of the scheme.					
44	Wherever possible and safe to do so the natural gradients and rock features of the surrounding landscape should be imitated when forming new screening banks, soil storage bunds and final faces.					
50	Backfilling or Infilling with Mine and Quarry Wastes Filling of a mineral void with these materials will be controlled by planning conditions. The conditions will need to address both the manner and sequence of filling the excavation and specify, usually by appropriate reference to plans and cross sections, the intended gradients, landform and contours of the final surface. Allowance should be made for predicted final settlement. Mine and quarry wastes are not controlled wastes as defined under the Environmental Protection Act 1990 (the EPA 1990).					
51	Infilling with Controlled Waste However, the choice to integrate the two activities should be a deliberate and conscious one, which takes account of the joint impact of the extraction and landfill on the site and surrounding area.					

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55	Restoration Restoration conditions also need to cover remedial treatment of soil so as to facilitate the use of cultivation, harvesting and drainage equipment for the aftercare period and the longer-term management of the land.					
59	Aftercare Consultations and Responsibilities Before imposing an aftercare condition, the MPAs are required to consult the appropriate Agriculture Minister (through the regional Land Use Planning Units of MAFF) where they propose that the land should be used for agriculture, and to consult the Forestry Commission where they propose that it should be used for forestry.					
61	Provided the necessary information has been submitted by the operator (see Boxes 5 and 6 in Annex A) then the consultations required for successful aftercare to take place should not be allowed to lead to undue delay in the grant of planning permission or the completion of an agreement on the aftercare condition or scheme.					
62	Form of Aftercare Conditions An aftercare scheme will usually be appropriate with a long-term permission where restoration and aftercare may not be begun for a number of years. It should provide a flexible framework for a successful programme of aftercare. There may, however, be cases where it would be appropriate to specify aftercare steps in the aftercare condition itself - e.g. where mineral working will be short-term and the aftercare relatively straightforward, or for the first phase where progressive restoration and aftercare are to be carried out relatively quickly.					
70	Financial Responsibility for Aftercare It is important that the likely aftercare requirements are made clear at the outset so that operators are aware of the cost implications involved, and can make provisions for them.					
74	Aftercare and Agricultural Set-Aside Before seeking to set land aside farmers and landowners are therefore advised to ensure that they are capable of meeting both aftercare planning requirements and AAPS management rules. Where this cannot be achieved land should not be set aside.					
75	Planning Obligations However, planning obligations which are sought should fairly and reasonably relate in scale and kind to the proposed development.					
82	New or Improved Reclamation Conditions for Existing Permissions and Workings, Including Interim Development Orders and Old Mineral Permissions The new schemes should include provisions for landform, restoration and aftercare of sites to a suitable after-use. Where a site is already subject to satisfactory conditions providing for restoration and aftercare there should be no need to alter them. In all other cases, appropriate restoration and, where relevant, aftercare conditions should be imposed and provision should be made for reclamation to an appropriate after-use as soon as practicable.					
86	Financial Provision for Reclamation It is Government policy that properly worded and relevant planning conditions which are complied with and, where necessary, enforced, should be able to secure the restoration, aftercare and after-use of mineral sites. No payment of money or other consideration can be required when granting a planning permission except where there is specific statutory authority…Financial guarantees to ensure the reclamation of mineral sites should therefore not normally be required, and policies in development plans should not state that a local authority will require or seek bonds other financial guarantees to underpin planning conditions.					
91	Responsibility for the restoration and aftercare of mineral sites lies with the operator and, in the case of default, with the landowner. Applicants should, therefore, demonstrate with their applications what the likely financial and material budgets for restoration, aftercare and after-use will be, and how they propose to make provision for such work during the operational life of the site. This is important to avoid future dereliction and the possibility that the costs of reclamation of mineral sites might have to be borne by other public or private sources.					
93	Any demonstration by an operator of how they intend to make financial provision for restoration, aftercare and after-use should relate to the development proposed. MPAs should not seek a demonstration or provision of unlimited cover for unspecified future liabilities or for matters					

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	where normal planning mechanisms would apply. In particular MPAs should not seek financial guarantees from applicants, prior to the grant of planning permission, to deal with possible future breaches of planning controls that can be dealt with through existing planning enforcement powers and procedures.					
94	There may remain exceptional cases where it will be reasonable for an MPA to seek a financial guarantee to cover restoration (including aftercare) costs, through a voluntary agreement/planning obligation at the time a planning permission is given. Examples of such situations may be: i. for very long-term new projects where progressive reclamation is not practicable, such as a super-quarry or some types of industrial or metalliferous mineral sites, where incremental payments into a secure fund may be made as the site develops; ii. where a novel approach or technique is to be used, but the MPA considers it is justifiable to give permission for the development; iii. where there is reliable evidence of the likelihood of either financial or technical failure, but these concerns are not such as to justify refusal of permission. However, it is the Government's view that where an operator is contributing to an established mutual funding scheme, such as the SAGA Restoration Guarantee Fund, it should not be necessary for an MPA to seek a guarantee against possible financial failure, even in such exceptional circumstances.					
95	There are some other circumstances where a financial guarantee might be appropriate as part of a planning obligation, including where the mineral developer contributes funding towards management of the new after-use of the land which needs to last beyond the formal aftercare period.					
96	It is important that where MPAs may seek specific financial guarantees for site reclamation, this does not unfairly discriminate against smaller operators. Therefore, all planning controls must be applied on an even-handed basis, regardless of the size of the operator.					
97	Monitoring and Enforcement of Restoration, Aftercare and Related Site Operations The objective should be for all relevant parties to have in place adequate systems, including quality controls and staff with appropriate training and skills, to achieve their parts in securing successful site reclamation in the most cost-effective manner.					
98	Mineral operators should ensure that good records of all relevant planning documents, and of operations carried out, are kept at each site; and similar information should be held by the MPA.					
99	It is recommended that mineral operators provide MPAs with an annual report on each of their sites, which indicates how they have monitored and complied with specific planning conditions. For new sites such a requirement could be included as a planning condition, providing that the actual conditions to be monitored and reported on are sufficiently precise and identified. However, monitoring reports should not be seen as an alternative to proper and objective monitoring of compliance by the MPA.					
100	MPAs should also have a planned series of visits to sites to check on key activities at the right times, such as in advance of soil stripping and stages of restoration, in addition to routine monitoring and recording of progress.					

MPG10: PROVISION OF RAW MATERIAL FOR THE CEMENT INDUSTRY

Paragraph	MPG10 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
4	Introduction The Government places great importance on reducing the level of imports of building and construction material, and wishes to encourage domestic production to counter the rising import trend and to provide employment. The Government would also not wish to discourage any export opportunities that might arise. The Government therefore looks to mineral planning authorities to make provision for adequate supplies of raw material for the industry as it endeavours to meet future domestic demand.	✘	✘	✘	✘	
	It is important that short term gains should not be achieved by creating environmental debts for future generations. The encouragement of cement production must therefore be balanced against important environmental and conservation interests. The industry are asked to draw up schemes for new quarrying in consultation with the minerals planning authorities which reflect these environmental considerations. Key features of these schemes will be proposals for the working arrangements and the restoration and after-use of both existing operations and new sites.					
26	Development Plans Development plans provide an opportunity for considering the various options for the future location of mineral workings, identifying preferred locations and the safeguarding of mineral resources for future working. Structure plans should identify areas for mineral development in broad terms. Mineral local plans should identify are as in more detail using Ordnance Survey-based maps.	✓	✓	✓	✓	
27	Development plans should also set out the environmental criteria against which planning applications will be assessed, and policies for the working, reclamation and after-use of mineral working sites. They should also carry forward national policies for landscape and historic or nature conservation and for agriculture which may constrain the choice of sites for mineral working.	✓	✓	✓	✓	
28	In cement-producing areas, development plans should try to assess the likely raw material needs of the industry and having examined the various options which are available identify preferred areas of working which will meet these needs. The forecast of possible future demand for minerals used in the production of cement at annex B should inform the assessment of likely needs. Mineral planning authorities should discuss the choice of sites with the cement industry when formulating these plans. The choice of sites must take into account national policies on landscape and historic or nature conservation and on agricultural land. The plans should also safeguard mineral resources for future working. The plans should set out the development control criteria which new planning applications for mineral extraction must satisfy. They should also set out policies and proposals for the working, landscaping, reclamation and after-use of mineral sites.	✓	✓	✓	✓	
31	Supply Policies for the release of land for mineral working and cement production should therefore balance the need for the development, environmental, social, agricultural and other relevant considerations.	✓	✓	✓	✓	
34	Location of Plant and Production Capacity It follows from this that, in order to maintain and in some cases increase production at existing plants, it will be necessary for the cement makers and the mineral planning authorities to identify areas of working and to safeguard resources reasonably near existing plants, after taking account of all environmental criteria. Proposals will also need to be drawn up for the working, landscaping, restoration and after-use of quarries and plant sites.	✓	✘	✘	✘	
36	Wharves For their part, planning authorities should make every effort to identify and safeguard suitable locations for wharves in their development plans.	✘	✓	✘	✘	
38	Safeguarding As mineral resources are finite, local planning authorities should make every effort to safeguard in their development plans, and through development control, those deposits which are of economic importance against other types of development which would be a serious hindrance to their extraction. It will usually be necessary to consider need over a much longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the time scales of the proposed mineral working in order to keep blight to a minimum. Where it is possible to extract minerals prior to other more permanent forms of development this should be encouraged unless there are good planning reasons for not doing so.	✘	✘	✓	✓	

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39	National Parks The Government's policy on the treatment of applications for mineral extraction in the National Parks is set out in MPG1. Applications must be considered on their merits, but because of the serious impact which mineral working may have on the natural beauty of the Parks, minerals applications in these areas "must be subject to the most rigorous examination". Extraction should be demonstrated to be in the public interest, and consideration of such applications should therefore normally include an assessment of: i. the need for the development, including the extraction of the mineral in terms of national considerations and the impact of permitting or refusing it upon the local economy; ii. the availability and cost of alternative sources of supply; iii. any detrimental effect on the environment and the landscape and the extent to which that could and should be moderated; iv. whether in the light of this assessment the proposed development would be justified in the public interest. (Hansard, House of Commons 9 April 1987 columns-393-394).		✓	✓	✓	
40	Areas of Outstanding Natural Beauty AONBs are designated under the National Parks and Access to the Countryside Act 1949 for the purpose of preserving and enhancing their natural beauty and, as is the case with National Parks, they may also contain valuable chalk and limestone deposits. The Government's policy on AONBs (Hansard, House of Commons 29 July 1982 Cols 707-10) also requires that minerals applications in these areas "should be subject to the most rigorous examination".	✓	✓	✓	✘	
41	National Nature Reserves and Sites of Special Scientific Interest DOE Circular 27/87 (WO 52/87) emphasises that in determining planning applications and drawing up development plan policies planning authorities should take full account of nature conservation factors particularly in areas designated as National Nature Reserves or Sites of Special Scientific Interest for their flora, fauna or geological or physiographic features. It specifies that mineral applications in these areas should be subject to the most rigorous examination. English Nature should be consulted on such applications in England and in Wales consultation should take place with the Countryside Council for Wales. It is recognised that there may sometimes have been cases where mineral workings have been beneficial in the establishment of new wildlife habitats and in the exposure of important geological features.	✓	✓	✓	✓	
42	Other Environmentally Important Areas Planning authorities may designate in their development plans other environmentally significant areas, such as special landscape areas of great landscape or nature conservation value. These areas may be important locally and mineral extraction proposals which fall within them will need to be given careful consideration, although the degree of protection given to such areas should not normally be as high as that given to the statutorily designated areas referred to above.	✓	✓	✓	✘	
43	Ancient Monuments and Archaeological and Other Cultural Interests Mineral working may damage or destroy irreplaceable sites, structures and remains of historic archaeological interest that are of importance to the national heritage. The industry should, wherever practical, ensure the physical preservation of important archaeological and historic remains or features, and mineral planning authorities should have regard to the desirability of preserving historic buildings and landscapes, conservation areas, ancient monuments and their settings when determining applications for extraction. Planning Policy Guidance Note 16: Archaeology and Planning (PPG16), and the CBI Code of Practice for Minerals Operators, underline the importance of identifying as early as possible the likely presence and importance of any archaeological sites liable to be affected by the proposed development. In England this should involve early consultation with the County Archaeological Officer or equivalent (listed in PPG16) and in Wales with the regional archaeological trust. Where remains are scheduled (under the provisions of the Ancient Monuments and Archaeological Areas Act 1979), the Secretary of State for the Environment's consent is needed before works may proceed. Where buildings are listed, listed building consent is required before they may be altered or demolished.	✓	✓	✓	✓	
44	Agricultural Land Applications for minerals extraction from land used for agriculture are subject to policies set out in DOE Circular 16/87 (WO 25/87). The Government's overall policy is that when considering the allocation of land for development and in deciding applications for planning permission affecting agricultural land, the agricultural implications must be considered together with the environmental and economic aspects. The Circular	✓	✓	✓	✓	

Paragraph	MPG10 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	also recognises that minerals have to be worked where they occur and that mineral workings provide valuable raw materials for industry and can contribute to the rural economy. These factors, and the feasibility of a high standard of restoration, therefore need to be considered in deciding planning applications for mineral working affecting agricultural land. Where minerals underlie good quality agricultural land, the Circular advises that the best and most versatile land is a national resource for the longer term and should in general be protected from irreversible development.					
45	Green Belt Proposals for mineral working also arise within Green Belts. The government's policy is set out in Planning Policy Guidance Note 2: Green Belts (PPG2). This states that the extraction of minerals need not be incompatible with Green Belt objectives provided that high environmental standards for working and landscaping are maintained and that the site is well restored to an appropriate use.	✘		✓	✓	
47	Local Environmental Effects MPAs should have regard to all material considerations when determining applications, including these guidelines and relevant policies in development plans. They will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the cement industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them. The industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns of neighbouring sites with regard to site operation and restoration. The objective must be to ensure that any environmental damage or loss of amenity caused by mineral working is kept to an acceptable level.	✓	✓	✓	✓	
48	Environmental Assessment Where proposals for development are likely to have significant effects on the environment, the projects concerned will need to be subject to environmental assessment (EA) under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988… … It is therefore the industry's intention to continue its practice of submitting statements, covering all relevant issues, in support of planning applications. The Government welcomes this.					
53	Transport The policy implications for the planning system are that cement plants generate significant amounts of road traffic and that the scope for transferring this to the railways is currently limited. MPAs should pay particular consideration to traffic routing when determining new planning applications. The industry should keep under review the options for using rail transport and use it in preference to road transport wherever it is cost effective to do so taking account of the possibility of obtaining grants under Section 8 of the Railways Act 1974 for the construction of rail facilities.	✓	✓	✓	✓	
54	Water Interests There is a substantial body of legislation in relation to water supply, pollution and land drainage. Mineral planning authorities and the industry should take into account the need to protect the flow and quality of water supplies in accordance with British and European Community legislation and the need to ensure that changes in the water table as a result of minerals extraction do not cause environmental damage. The National Rivers Authority should be consulted about all new mineral development proposals.	✓	✓	✓	✓	
55	Air Pollution Cement production can generate significant air pollution. Under the Environmental Protection Act 1990 the manufacturer of cement or clinker must be authorised by HMIP for integrated pollution control. The operator must demonstrate the use of the best practical environmental option (BPEO). The bulk handling of cement other than at the point of production requires authorization from the local authority. The Secretary of State is issuing guidance notes to be used by both HMIP and Local Authorities to assist in achieving the objectives set down in the Environmental Protection Act 1990.	✓	✘	✘	✘	
57	Landbanks Mineral planning authorities should therefore maintain landbanks of permitted reserves of raw materials for cement plants, providing that the industry come forward with sufficient environmentally acceptable proposals. These landbanks should include the industry's primary materials (chalk and limestone) and also secondary materials (clay and shale). There should be a landbank calculated for each site.	✓	✓	✓	✓	

Paragraph	MPG10 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
58	The size of the cement industry's landbank should be directly linked to the scale of capital investment envisaged at a site, for an important feature of the industry is the high cost of investment and the long amortisation periods this entails. Mineral planning authorities should normally aim to maintain cement plant with a stock of permitted reserves of at least 15 years. Where significant new investment (such as a new kiln) is agreed with the mineral planning authority, the plant should be provided with a stock of permitted reserves to provide for at least 25 years. New plant on a greenfield site should be provided with a stock of permitted reserves lasting more than 25 years.	✓	✘	✓	✘	
59	Development plans should normally allocate sufficient land for mineral extraction for cement manufacture to provide for the maintenance of landbanks. Structure plans should set out the general principle of maintaining a landbank for cement plant, and mineral local plans should seek to identify areas where minerals will be worked. Sufficient land should be allocated to maintain this landbank throughout, and at the end of, the plan period.	✓	✓	✘	✘	
60	It should be noted that the general commitment to maintain a landbank does not remove a mineral planning authority's or the Secretary of State's discretion to refuse planning permission for an application should there be overriding environmental objections. Planning applications may also be refused within areas allocated in development plans if the actual development proposal is judged to be unacceptable on environmental grounds.					
61	In most parts of the country, mineral planning authority boundaries should constitute a suitable basis on which to base a landbank policy, but mineral planning authorities may choose to adopt either a sub-regional or a sub-county approach as appropriate. Whatever area is chosen for landbank purposes, it is essential that production and reserve data should be available and the industry and mineral planning authorities should work together to facilitate this.					
63	The Government takes the view that it is in the national interest to maintain and increase cement production, and to increase the scope for competition. Sufficient reserves of minerals should be permitted for this. More permitted reserves are particularly needed where the size of the landbank is below the levels recommended in para 58 above. The cement makers and the mineral planning authorities should examine the feasibility of bringing forward planning proposals for new raw material reserves at the best balance of economic, environmental and social cost. In undertaking this the planning authorities may wish to have regard to the forecast at Annex B of the long term future demand for cement minerals.					
64	Working Practices, Restoration, Aftercare and After-use The Government looks to the cement industry to adopt working practices in their mineral extraction operations which will cause the least adverse environmental impact and to endeavour to be a good neighbour. The Government has commissioned research into the environmental effects of surface mineral working and this will provide the basis for further advice on good environmental practice for the minerals industry generally. The Government will expect the cement industry to take account of such guidance in operating its present sites and in any future operations.					
65	It is established Government policy that restoration and, usually, aftercare will be required to make mineral workings fit for beneficial after-use and environmentally acceptable. This may include restoration to agriculture, forestry, management for nature conservation, provision of public open space, recreation or other development……Wherever practicable, mineral planning authorities and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved…					
66	Reinstatement of sites to an appropriate after-use should be an integral part of the planning of raw material supplies for the cement industry. One of the distinguishing features of the industry is the scale and duration of its mineral extraction operations, which can transform the local landscape. For each operational site the industry should therefore draw up a quarry plan, where such a plan is not already in existence, in consultation with the mineral planning authority, for the screening and phasing of working, restoration and aftercare, and the longer term after-use and changes to the landscape. As recognized in MPG7, whilst final site reclamation and possible after-uses must be considered at the time of a planning application and appropriate provision made in the conditions, it is likely that most such schemes prepared before extraction commences will require updating and amendment during the lifetime of a working. Planning conditions may allow for this by requiring a general treatment scheme to be prepared and agreed before extraction starts, to be followed up by submission of detailed schemes for particular phases as they are completed and by setting a time limit for submission of the final reclamation plan which is commensurate with the duration of the mineral permission.					
67	Restoration of mineral sites may involve infilling all or part of the site with waste material. Where wastes other than those generated through the extraction process are being brought onto the site, the nature of the wastes to be used and the method of working need careful attention at the planning application stage and in obtaining an appropriate licence from the waste disposal authority. The Environmental Protection Act will require authorities to be satisfied that there are no hazards or difficulties arising from the landfill before they can provide a Certificate of Completion. This could involve particularly lengthy periods (20-30 years) but, if landfill gas from any site (eg clay extraction and backfill) could be utilised as a fuel					

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	for any adjoining cement plant, the resulting integrated scheme of extraction and use might optimise use of materials and restoration of land. Where the quarry plan envisages an afteruse involving built development, restoration should entail using inert waste to avoid the dangers of methane generation.					
68	It will be important for MPAs and the industry to work together, using both statutory and voluntary procedures available, to achieve satisfactory solutions for these older operational sites. The aim should be to do this within 2 years of the publication of these guidelines.					
70	Speeding the Planning System The Government accepts that quarrying proposals are often complicated and can arouse local controversy, and it is important that all material considerations receive careful attention. Nevertheless, the Government expects mineral planning authorities to determine applications expeditiously. The industry itself can help to reduce possible delay by discussing its development proposals with the authority, the local community, relevant local bodies such as the County Wildlife Trusts and the appropriate statutory bodies at an early stage before planning applications are formally submitted. Applicants should aim to provide authorities with as much information as possible to help them determine the application. If the authority needs further information, every effort should be made to ensure such requests are comprehensive at the outset. Mineral Planning Guidance Note 2: "Applications, Permissions and Conditions" (MPG2) provides further guidance on the drawing up and determining of planning applications.					
72	Potential for waste disposal and energy conservation However, there needs to be careful control of the overall chemistry to ensure emission limits are not exceeded, and account has to be taken of the production capacities, product quality, energy consumption and capital investment for the safe and practicable burning of potential wastes. Kilns using waste would need appropriate planning and waste disposal licensing consents (these will become waste management licences with the implementation of the 1990 Environmental Protection Act). HMIP should be consulted about proposals for burning wastes.					
73	The industry should look for opportunities to dispose safely of waste in this manner.					
74	Industry will continue to look for other such opportunities.					
79	Implementation and Review These guidelines will provide the basic framework for the planning of raw material for cement. They will be taken into account by the Secretaries of State when considering development plans and individual planning applications which come before them for decision.					
80	MPAs should have regard to these guidelines in formulating development plans and when considering development proposals. Development plans should recognise the need to make provision for a continuing supply of raw material in the vicinity of existing plant in a manner compatible with other environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied. The mineral plans should also maintain a landbank of permissions compatible with these objectives.					
81	The cement industry has an important role to play in co-operating with, and contributing to, the development plan process. For example, the successful application of landbank policies depends upon the ready availability of information on reserves and production. The industry should endeavour to ensure that proposals for mineral development reflect these guidelines and come forward at the right time. The industry is also responsible for drawing up the quarry plans, in consultation with the mineral planning authorities, for achieving a high standard of operation while the site is being worked and for restoring the site when working has finished.					
82	These guidelines have been based on the best information currently available. They will need updating to reflect changes in demand, technology and environmental standards, but the policy of establishing landbanks will provide flexibility. The guidelines will be reviewed every four years.					

MPG13: GUIDELINES FOR PEAT PROVISION IN ENGLAND

Paragraph	MPG13 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	The Government wishes to see indigenous mineral resources developed within its broad objectives of encouraging competition, promoting sustainable economic growth, assisting the creation and maintenance of employment, and protecting the environment. For the economic well being of the country, it is essential that there is an adequate and steady supply of minerals to meet the needs of the community and to foster economic growth. At the same time, the Government recognises that peat is ultimately a finite resource, and that its extraction can have a significant environmental impact (see the UK Strategy for Sustainable Development (Cm 2426 - January 1994)).					
	The implications of sustainable development for minerals planning in general are that avoidable and irretrievable losses of natural resources, such as minerals, should be limited. The objectives of sustainable development for minerals planning are: i) to conserve minerals as far as possible, while ensuring an adequate supply to meet the needs of society; ii) to minimise production of waste and to encourage efficient use of materials, including appropriate use of high quality materials, and recycling of wastes; iii) to encourage sensitive working practices during minerals extraction, and to preserve or enhance the overall quality of the environment once extraction has ceased; iv) to protect designated areas of critical landscape or nature quality from development, other than in exceptional circumstances where it has been demonstrated that development is in the public interest.	✘		✓		
	The Government's objectives for nature conservation are to ensure that its policies contribute to the conservation of the abundance and diversity of British wildlife and its habitats, or minimise the adverse effects on wildlife where conflict of interest is unavoidable, and to meet its international responsibilities and obligations for nature conservation.					
	An essential task for Government, local authorities, and all public agencies concerned with the use of land and natural resources is both to make adequate provision for development and economic growth and to ensure effective conservation of wildlife and natural features.					
	The Biodiversity Action Plan has set out underlying principles and objectives, to conserve and enhance biological diversity within the UK, and to contribute to the conservation of global biodiversity through all appropriate mechanisms. Objectives for conserving biodiversity are: i) To conserve and where practicable to enhance: a) the overall population and natural ranges of native species and the quality and range of wildlife habitats and ecosystems; b) internationally important and threatened species, habitats and ecosystems; c) species, habitats and natural and semi-natural habitats that are characteristic of local areas; d) the biodiversity of natural and semi-natural habitats where this has been diminished over recent past decades. ii) To increase public awareness of, and involvement in, conserving biodiversity. iii) To contribute to the conservation of biodiversity on a European and global scale.					
	However, the Government wishes to continue to encourage the development of alternatives to peat for both the less demanding uses and of more specialised alternatives for more demanding uses…					
42	Government Policies in Respect of Peatland in England The Government's policy for peatlands in England is to: i) conserve a sufficient range, distribution and number of all peatland habitats, representing part of the critical natural capital of the country; and promote the wise use of the wetland resource within the nation's peatland heritage; ii) avoid wherever practicable the destruction of important archaeological remains in peatland; iii) enable the horticultural industry to continue to be supplied with peat; and also to encourage the development and use of suitable alternatives so that market needs can be met in different ways;					

Paragraph	MPG13 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
	iv) provide a suitable framework for updating old permissions for peat extraction, especially in respect of rehabilitation of sites.					
43	It is therefore the Government's intention that the future extraction of peat in England from any new sites should be restricted to areas which have already been significantly damaged by recent human activity and are of limited or no current nature conservation or archaeological value. Wherever possible, subsequent restoration of such sites should give priority to wetland rehabilitation and to the enhancement of the nature conservation resource.					
44	Government policy, as agreed in Article 4 of the Framework Convention on Climate Change signed in Rio in 1992 and ratified in 1993, is to adopt policies and take corresponding measures to protect and enhance greenhouse gas sinks and reservoirs. Undisturbed peatlands store large amounts of carbon…The presumption in this MPG against the exploitation of peatlands which have not been significantly damaged will therefore help to meet the UK's Rio commitment.					
45	The demands of the horticultural user markets should be met by a combination of home produced peat, imported peat, and alternative materials. The Government's commitment towards sustainable development and using resources prudently means that unnecessary wastage of resources should be avoided. Therefore, so far as possible, peat should be used for higher quality markets, while its use should be avoided or minimised where it is either not needed or not the best material, for example for general soil improving, and mulching. There may be further scope to reduce total usage of materials in some sectors. There should also be encouragement to use alternatives where these are suitable and represent other "sustainability" objectives such as recycling and waste minimisation. The range of alternatives suitable for the more specialised uses may increase as further research is undertaken.					
51	Development Plans: General Considerations In preparing Minerals Local Plans and UDPs, local authorities in appropriate areas should take into account the policies contained in this MPG. They should make provision for the conservation of peatland habitats and for identification of specific sites or areas which meet the criteria for selection for future peat working, as explained in paragraphs 52 to 61. Early discussion with the minerals industry and with English Nature (EN) and English Heritage (EH) in the preparation of plans will be helpful.					
52	Policies for Nature Conservation of Peatland Habitats and for Peatland Archaeology in Development Plans Sites of raised bog and other peatland habitats of key nature conservation importance should be identified in development plans…Planning authorities should seek advice from EN, who have a statutory role in advising on development plan preparation…Plans should also identify principal areas of major archaeological significance after consultation with the County Archaeological Officer (see paragraphs 75 to 77).	✘		✓		
53	Criteria for Selection of Sites for Future Peat Working: General Approach Peat producers, and other suppliers of materials to the user markets, should determine the level of output they wish to aim for in the light of market conditions.	✘		✘		
56	Guidelines for Development Plans MPAs should have regard to all material considerations when determining applications on these areas, including other national and regional policy guidelines.					
57	To conserve a full range of peatland habitats and archaeological deposits, peat extraction from bogs which retain a high level of nature conservation or archaeological interest should be permitted only in exceptional circumstances. These circumstances are only likely to arise where it can be demonstrated conclusively that extraction will not adversely affect the habitats, species or deposits being safeguarded. The lowland raised bogs of high nature conservation interest will primarily relate to sites, or areas within bogs, which are defined in the National Peatland Resource Inventory as land-use classes P1-P4, or where secondary peat surfaces contain valuable peat-forming species (see Annex B). These are areas which retain a primary peat surface or include a significant proportion of species characteristic of a lowland raised bog habitat. The Secretary of State would normally call-in, for his decision, planning applications which are likely significantly to affect these classes of raised bog. The advice of EN will be taken into account in deciding which applications are likely to have such effects. It is not expected that such sites would be identified for extraction in development plans. The archaeological value of all peatland is not yet systematically recorded, but EH has supported extensive survey work in several major areas and the results of this, and other, survey work is available in the Sites and Monuments records maintained by County Archaeological Officers, who should therefore be consulted by MPAs during plan preparation.					

Paragraph	MPG13 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council- Minerals Local Plan	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
58	When preparing development plans and in considering any applications for their extraction, mineral planning authorities will need to consider the nature conservation interest of these areas or sites. Where the peatland retains a primary surface, which includes a significant proportion of species characteristic of ombrotrophic (bogs) or minerotrophic (fens) conditions, planning permission should, as in the case of raised bogs, only be granted in exceptional circumstances. MPAs should consult EN when determining such cases.					
59	To ensure that as far as possible any areas identified in a development plan for peat extraction can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that sites are:- i) of little or no nature conservation or archaeological value; ii) of economically workable deposits; iii) likely to become available to the minerals industry within the plan period; and iv) are not constrained by other land-use policies (eg high quality agricultural land).					
60	Where the criteria listed above cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. But plans must be clear and unambiguously expressed in accordance with PPG12.					
62	Areas Designated for their Nature Conservation Importance: General Planning authorities must consult EN on any development proposals which are likely significantly to affect these sites (see PPG9 "Nature Conservation").					
	As a matter of policy the Government wishes development proposals affecting potential SPAs and candidate SACs before they have been agreed with the European Commission to be considered in the same way as if they had already been classified or designated.	✘		✘		
	The Government has chosen to apply the same considerations to development proposals affecting listed Ramsar sites as are applied to SPAs and SACs (see PPG9).					
69	Nature Conservation, Including Conservation of the Natural Beauty and Amenity of the Land, in Development Plans Structure Plans and part I of unitary development plans set out general policies and proposals on key strategic issues, taking account of the appropriate Published: 10 May 2002 national and regional policy guidance. They should identify key sites of nature conservation importance, such as SSSIs, NNRs, SPAs, SACs and Ramsar sites, to establish a strategic framework and exemplify the particular characteristics of nature conservation interest in the plan area in their national and international context. Policies to be applied to these sites should reflect their relative significance and place particular emphasis on the protection of internationally important sites. The detailed policies in local plans and part II of unitary development plans should conform to this framework.					
70	Structure plans, local plans and UDPs must include policies in respect of the conservation of the natural beauty and amenity of the land. Arising from article 10 of the Habitats Directive, regulation 37 of the Habitats Regulations states that such policies shall include policies encouraging the management of features of the landscape which are of major importance for wild flora and fauna. Suitable planning conditions and obligations may promote such management (for further advice see PPG9 "Nature Conservation").					
71	National Parks and Areas of Outstanding Natural Beauty Planning Policy Guidance Note 7 - "The Countryside and the Rural Economy" (PPG7) provides detailed Government planning policies for development in National Parks, the Broads and AONBs. The same policies apply to the New Forest Heritage Area. The Government considers that major developments should not take place in these areas save in exceptional circumstances. Because of the serious impact that mineral developments may have on the natural beauty of these areas the Government considers that all minerals applications must be subject to the most rigorous examination, and all mineral developments should be demonstrated to be in the public interest before being allowed to proceed.					
	Consideration of mineral applications in such areas should therefore include an assessment of: i) the need for the development in terms of national considerations of mineral supply; and the impact of permitting the development, or refusing it, on the local economy; ii) whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way;					

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	iii) any detrimental effect of the proposals on the environment and landscape, and the extent to which that should be moderated; iv) in the case of extensions to existing workings, the extent to which the proposal would achieve an enhancement to the local landscape.					
	Proposals for mineral working also arise within Green Belts. The Government's policy is set out in Planning Policy Guidance Note 2 -"Green Belts" (PPG2). Mineral extraction need not be inappropriate development in Green Belts; it need not conflict with the purposes of including land in Green Belts provided that high environmental standards are maintained and that the site is well restored.	✘		✓		
76	Archaeological and Other Cultural Interests The peat industry should, wherever practical, ensure that important archaeological and historic remains or features are physically preserved, and MPAs should have regard to the desirability of preserving the wider historic landscape (as defined in PPG15, paragraph 6.40) and of the archaeological heritage when determining planning applications…There should be early consultation with the County Archaeological Officer (listed in PPG16). Where physical preservation is not practical, MPAs should ensure that appropriate provision is made for the recording of archaeological remains, the conservation of significant artifacts and the publication of scientific results.					
77	Some of the most important sites in peatland may be scheduled as ancient monuments (Ancient Monuments and Archaeological Areas Act 1979), in which case scheduled monument consent (SMC) from the Secretary of State for National Heritage, who is advised by EH, must be obtained before any work can commence.					
78	Agricultural Land The Government's policy, as set out in PPG7, is that the best and most versatile agricultural land is a national resource for the future and considerable weight should be attached to protection of such land against irreversible development.					
79	Therefore, when considering the allocation of land for mineral development and in deciding any application for planning permission affecting agricultural land the agricultural implications must be considered together with the environmental and economic aspects, and the feasibility of a high standard of restoration.					
81	Forestry The scope of the Government's forestry and environmental policies for woodlands includes encouraging the establishment of new woodlands which enhance the character and appearance of landscapes and promoting the restoration of derelict land to woodland.					
83	Other Developments Affecting Peatlands Careful consideration should be given to the need for any other types of development to take place on peatlands.					
89	Treatment and Reviews of Existing Permitted Extraction Sites Wherever practical, a priority for after-use schemes should be to provide areas for nature conservation unless a different after-use is already specified by the planning permission and remains technically achievable and appropriate. However, this may not always mean re-creating the conditions which would lead to the re-establishment of a raised bog system. The topics to be covered in rehabilitation and after-use schemes should include: the phasing of remaining extraction; hydrology, water controls and drainage; depths of peat and its characteristics; underlying geology; extraction methods; preservation or recording of archaeological remains; final excavated site topography; vegetation protection, regeneration and management; methods and timescales of site management.					
90	For some sites the terms of existing legal agreements between EN and a site owner or operator should be drawn on in the preparation of schemes to submit to the MPA.					
91	Where an existing site under consideration forms part of a raised bog which also retains areas of nature conservation or archaeological importance, there should be appropriate safeguards to minimise the risk of damage to such areas. In some cases this may include the need to introduce buffer zones between the worked and undisturbed areas; but such measures should be proportionate to the importance and size of the undisturbed areas and their conservation and/or archaeological value.					
92	Considering Individual Planning Applications MPAs should have regard to all material considerations when determining applications, including this Guidance Note and relevant policies in development plans. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, archaeological,					

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	agricultural, landscape, traffic, site restoration and other effects of the proposals that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered these potential effects when preparing planning applications and has sought to mitigate them as appropriate.					
96	Mineral planning authorities should have regard to the guidance given in paragraphs 52 to 61.					
98	Transport The Government would like to see as much freight as possible carried by rail or waterway rather than by road wherever possible.					
99	Working Practices, Restoration Aftercare and After-use It is established Government policy that restoration and aftercare will be required to make mineral workings environmentally acceptable and fit for beneficial after-use. This may include restoration to peatland habitats, agriculture, forestry, or other forms of amenity use. Applications for extraction of peat need to include information which demonstrates that the site can be restored satisfactorily; and if there is serious doubt whether a new extraction proposal can meet this requirement then it is doubtful whether permission for working should be given. Wherever practicable, MPAs and mineral operators should agree schemes of working and reclamation of sites which provide for progressive restoration, unless to do so would be likely to affect adversely the standard of restoration achieved.					
100	Reinstatement of sites to a condition suitable for an appropriate after-use should be an integral part of the planning of peat extraction.					
101	Implementation and Review This Guidance Note will provide the basic framework for the planning for provision of peat and alternatives for soil improvers and growing media. It will be taken into account by the Secretary of State when considering development plans and individual applications which come before him for decision.					
102	MPAs should take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of materials in a manner compatible with environmental objectives. The plans should also provide guidance on the environmental objectives and the development control criteria which will be applied.					
103	The peat industry should endeavour to ensure that proposals for mineral development are consistent with this Guidance Note and that they are brought forward at the right time. The industry is also responsible for achieving a high standard of operation while a site is being worked and for restoring the site when working has finished.					
104	This Guidance Note has been based on the best information currently available. It will need to be kept under review and updated to reflect changes in demand, development of alternatives and environmental standards					

MPG15: PROVISION OF SILICA SAND IN ENGLAND

Paragraph	MPG15 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council-	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
17	Regional Position MPAs in other areas should also take account of this guidance in drawing up minerals local plans.					
28	National Policy Framework: Supply The Government believes that for the economic well-being of the country it is essential that the silica sand consuming industries continue to receive an adequate and steady supply of indigenous raw material so that they can continue to meet the needs of the community for products which use silica sand in their manufacture. It is important that supplies to the manufacturing sector should be provided in the most environmentally acceptable way and with regard to the principles of sustainable development.	✘		✓		
30	Sustainable Development For silica sand, this means that the planning system should ensure that the best and most efficient use will be made of the available resources, so that the extraction of new reserves is limited to what is necessary to meet the needs of the current generation; and that the overall quality of the environment affected by silica sand extraction should be maintained or improved over time. Silica sand deposits should not be sterilised by other forms of development which would make them unavailable for use by future generations without good land-use planning reasons. It is desirable that high grade silica sands should as far as possible be conserved for use where they are required.	✓		✓		
31	Use of Materials It is important that silica sand resources should be used as efficiently as possible and that unnecessary wastage of resources should be avoided. Within the general definition of silica sand, there are certain high grade materials which, wherever possible, should be reserved for industrial end-uses which require such sand and for which there is no readily available alternative. …It is in the national interest that high grade silica sand should not be wasted and that its use in the construction industry should be minimised.	✘		✓		
32	Recycling MPAs and the extracting and consuming industries should therefore consider what steps they can take to encourage re-use/recycling where there are environmental benefits to be gained.	✓		✓		
	In recent years, the glass and foundry industries have made efforts to recycle, both to save sand and to reduce energy consumption. The Government wishes to encourage this and looks to the consumer industries to monitor the amounts of their products which are re-used or recycled and, where appropriate, to set targets for increased re-use/recycling					
	The Government encourages greensand operations to aim as far as possible to achieve a high level of recycling. In the case of resin sand operations, the Government encourages industry to strive for technological advances which will increase the amount of recycling of this type of sand.	✘		✘		
	The consumer industries are encouraged to explore further the scope for such innovation, including technology which would enable the quantities of silica sand required to be reduced further.					
40	Silica Sand Provision in Development Plans In carrying out their development plan functions, local authorities in areas which have historically produced silica sand, or are known to contain silica sand deposits, should take into account the policies contained in this MPG. They should recognise the material scarcity of silica sand and also aim to make provision in their development plans for an appropriate level of production which takes account not only of recent production levels in the area, but also of regional and national needs, through the identification of specific sites and the inclusion of preferred areas or areas of search.	✓		✓		
41	To ensure that the areas identified in the development plan can be translated into workable reserves, MPAs should make reasonable efforts to satisfy themselves that the land is: i. underlain by potentially economically workable deposits of mineral; and ii. likely to become available to the minerals industry within the plan period. Where these points cannot be resolved satisfactorily, development plans should be sufficiently flexible to make allowance for any uncertainty. Plans must be clear and unambiguously expressed in accordance with PPG12.					

Paragraph	MPG15 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council-	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
42	In order to assist in the delineation of these areas in development plans, the silica sand industry should co-operate with MPAs wherever possible by providing information about the location of mineral resources in their areas.					
45	Landbanks However, MPAs in areas containing silica sand deposits need to make an appropriate contribution to national requirements and should therefore aim to maintain landbanks of silica sand permissions, as far as this is possible and realistic, provided that the industry comes forward with suitable applications.	✓		✓		
47	Due to the national need for silica sand, it is important that each production site is adequately provided for, unless exceptional circumstances prevail. In practice, this will mean that most sites will require a reasonable level of reserves. MPAs should aim therefore to ensure that landbanks of at least 10 years are maintained for individual sites. However, in operating this policy, MPAs will also need to consider the Government's general policy of encouraging competition. The need for the mineral must be balanced against environmental constraints and there may be overriding environmental reasons why the stock of permitted reserves at some sites may not be replenished as they are used up. Care and flexibility will be needed in addressing these issues. In practice, there may be difficulties as production data may be confidential at site level, but it may be difficult to calculate landbanks or to make specific provision in mineral local plans without this information. It will therefore be in both the MPAs and industry's interests to maintain a dialogue and informed analysis of actual need and supply.	✘		✓		
	In the case of significant new capital investment by the industry in existing or new sites, it may be necessary for the plant to be provided with a stock of permitted reserves to provide for at least 15 years, or substantially longer than this, for greenfield sites, depending on the circumstances.					
52	The landbank requirement should be calculated by multiplying the average of the last 3 years' production for which figures are available by the appropriate number of years or by reference to levels of provision set out in the development plan. The calculations should have regard to the quality of sand and the use to which the material is to be put.					
53	Safeguarding Silica sand is a scarce resource and MPAs should, as far as possible and in co-operation with other planning authorities, safeguard deposits which are, or may become, of economic importance, against other types of development or other constraints which would be a serious hindrance to their extraction.	✘		✓		
54	It is essential to consider the need for silica sand over a longer period than for most other land use planning issues. When considering the need to extract the mineral as opposed to letting surface development proceed, it will be necessary to consider the timescales and scale of investment of the proposed mineral working in order to prevent undue delay. Where it is possible to extract silica sand prior to some other more permanent form of development this should be encouraged unless there are good planning reasons for not doing so. MPAs may define Mineral Consultation Areas (MCAs) in their plans. These enable county and district councils to liaise where surface development would be likely to affect or be affected by the winning and working of minerals. MPG1 (paragraphs 36-39) provides further advice on MCAs.	✘		✓		
63	Considering Individual Planning Applications: General Planning applications should be determined in accordance with the development plan unless material considerations indicate otherwise. MPAs will need to consider in detail matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision. For its part, the industry will need to demonstrate that it has considered the potential effects when preparing planning applications and has sought to mitigate them as appropriate.					
64	Assessment of Need and Supply As far as silica sand is concerned, authorities should have regard to the balance of real need and real supply. But landbank calculations and estimates of real supply can seldom be exact and decisions on individual applications should not be determined on an over-precise calculation of whether supply matches the landbank requirement.					
65	In considering applications, consideration should be given to the position in respect of permitted reserves and whether the particular nature and qualities of the silica sand, such as suitability for particular end-use not met by other available sources in the area or region, in itself justifies granting permission.					
66	It is important to draw a distinction between the reasons for a landbank as discussed in paragraphs 43-52 above and the need for the size of a particular permission to reflect the levels of capital investment required at specific sites.					
69	Environmental Effects The silica sand industry should demonstrate that it is taking all practicable steps to satisfy the environmental concerns on site operation and restoration. Any environmental damage or loss of amenity caused by mineral working should be kept to a minimum.					

Paragraph	MPG15 Policy (Abridged)	Durham County Council- Minerals Local Plan	Devon County Council-	Staffordshire County Council- Minerals Local Plan	Derby City Council and Derbyshire County Council- Minerals Local Plan	Havering London Borough- Unitary Development Plan
70	Operators Proposals In considering proposals for minerals development, authorities will wish to satisfy themselves that the operator's proposals for managing the site, and for restoration and aftercare, will achieve high standards of operating and reclamation practice in accordance with modern planning requirements…MPAs should thus have regard to the practicality of the proposal before them.					
74	Transport Planning authorities should, individually or collectively, have regard to these factors when drawing up policies in their development plans on such matters as transport modes, routing and the safeguarding of freight depots.					
75	Discussions should take place with MPAs at an early stage on how traffic generated by the proposal will be managed to minimise environmental disturbance.					
77	Planning authorities should, as far as they reasonably can, safeguard existing rail head facilities and encourage new ones.					
78	Water Interests MPAs and the industry should take into account the body of legislation in relation to water supply, pollution control and land drainage…The Environment Agency should be consulted about all new development proposals. Where working would take place below the natural water table applications will need to include proposals for a suitable aftercare.					
79	Working Practices, Restoration, Aftercare and After-use Applications for extraction of minerals such as silica sand need to include information which demonstrates that the site will be restored satisfactorily.					
80	Planning applications should include comprehensive plans and statements as to how sites will be progressively worked with a view to achieving particular restoration enabling appropriate after-use to take place.					
82	However, all planning applications should contain sufficient detail of working and restoration methods and programmes to allow an assessment to be reached on the viability of the application and of proposals to achieve the intended after-uses. Operators should therefore draw up Quarry Plans to accompany planning applications.					
83	Where possible working and reclamation should be in a progressive manner……However, the aim should be to minimise the area open and disturbed at any one time and, where reasonably practicable, to secure progressive restoration of the site. Care should be taken to conserve all soil and soil-making materials suitable for use in restoration.					
84	Whether a wet after-use is acceptable will need to be considered alongside the policy on agricultural land set out at paragraphs 61-62 and in consultation with the Environment Agency.					
85	MPAs and the industry should bear in mind opportunities for habitat creation and enhancement even where nature conservation may not be the primary end-use of a site.					
88	Implementation MPAs must take this Guidance Note into account when preparing development plans. Development plans should recognise the need to make provision for a continuing supply of silica sand in a manner compatible with environmental objectives. The plans should also provide guidance on these environmental objectives and the development control criteria which will be applied.					
89	The industry should endeavour to ensure that proposals for mineral development reflect this Guidance Note and that they are brought forward at the right time. The industry is also responsible for drawing up quarry plans, in consultation with the mineral planning authorities; for achieving a high standard of operation while the site is being worked; and for restoring the site when working has finished.					

Appendix 5 Development decision control search

1. DCS Ref: 100-066-253

Removal of working and restoration condition regarding permission for continued hardrock extraction at long established quarry in countryside. Production limits and heavy goods vehicle movements. Notes extraction restricted by constraints of site. Conditions would make no change to extraction and processing operations. Conditions not justified and unreasonable.

Date: 21-01-2010 **Outcome:** allowed **Inspector:** W BURDEN **PINS Ref:** APP/T1600/A/09/2113641 **Address:** COTSWOLD STONE QUARRIES, COTSWOLD HILL QUARRY, FORD, GL54 5RU

Appellant: SMITHS QUARRY OPERATIONS LIMITED **Authority:** GLOUCESTERSHIRE CC **Dec Type:** written reps

2. DCS Ref: 100-057-981

30ha peat extraction site on agricultural land within Minerals Area of Search (AoS) and Environmentally Sensitive Area (ESA) in countryside. No harm to character of wider area due to mix of agricultural land and operation worked peat extraction sites, but harm to local landscape due to stockpiling and extraction. Harm to hydrology and land stability due to lowering of water table, permeability of the peat and insufficient detail and evidence to provide certainty over operations, management of hydrology and protection of water tables on adjoining land.

Date: 30-09-2008 **Outcome:** dismissed **Inspector:** J WOOLCOCK **PINS Ref:** APP/G3300/A/07/2058232 **Address:** LAND AT CRADLEBRIDGE, NR GLASTONBURY, SOMERSET

Appellant: DURSTON GARDEN PRODUCTS LTD AND ECLIPSE PROPERTY INVESTMENTS LTD **Authority:** SOMERSET CC **Dec Type:** inquiry

Water table depth control thwarts peat extraction.

The mining of peat in the Somerset levels was judged to be unacceptable because of the difficulty in ensuring the stability of a farm in the area.

The council opposed the scheme on the basis that the appellants had failed to demonstrate how the boundary protection measures around the extraction area were sufficient to protect the height of the water table adequately and to prove that the operation would not undermine the stability of neighbouring land and property.

The appellants had commissioned detailed geotechnical assessments which attempted to demonstrate that the height of the water table could be controlled adequately. This could be achieved by constructing an impermeable water barrier around the farm buildings or by constructing a clay filled ditch full of water, they claimed. This would enable the water table to be maintained at a constant height thereby removing the threat of the soil drying out which could lead to subsidence and collapse.

The inspector decided that it was unclear whether the various techniques proposed to be employed would be effective in maintaining the water table at an acceptable level during the lifetime of the extraction. The clay filled trenches proposed as part of the scheme remained experimental, the inspector decided, such that he could not place significant weight on their

ability to regulate the flow of water into the protected area adequately. Any failure to keep the water table at an acceptable height would lead to shrinkage of the peat and differential settlement of the buildings. In his opinion, the appellants had failed to demonstrate that the hydrology of the area could be controlled adequately to ensure that buildings and property were not placed at risk from collapse and damage.

3. DCS Ref: 100-065-642

a) Unauthorised sand extraction and restoration to agricultural land using inert fill. Breach of time limit condition. Extraction and fill to be ceased by 30th June 2009 and restoration complete one year later b) Continued extraction and fill. c) Skip hire, waste recycling and transfer, green waste composting. d) Workshop, office, internal haul road. Undulating open countryside site. Waste recycling operations in breach of time limit restriction, now sought to 2013. Alleged could not be justified by restoration needs of adjacent sand pit. Issue whether recycling could continue without justification link of sand pit restoration. Industrial enterprise more appropriately operated from urban industrial estate rather than rural area and restoration only justification. Notes restricted height railway bridge access and alternative would be lorries which would be too tall to pass; little disturbance from use. Restoration would take longer if recycling use ceased. Acceptable until void filled

Date: 27-11-2009 **Outcome:** allowed **Inspector:** J WHALLEY **PINS Ref:** APP/Z1585/C/08/2111890 **Address:** LAND AT WIDDINGTON SAND PIT, HOLLOW ROAD, WIDDINGTON

Appellant: CARR & BIRCHER LTD **Authority:** ESSEX CC **Dec Type:** hearing

4. DCS Ref: 100-053-075

a) Sand and gravel extraction from 15.6 hectare and restoration for commercial forestry and b) variation of time limit condition on ready mix concrete plant on adjacent site both sites in Site of Special Scientific Interest (SSSI) and Special Protection Area (SPA). Need for sand and gravel established and extraction would cause little long term landscape harm but proposals for restoration would have an adverse effect on bird habitat within the SSSIs and SPA.

Date: 14-01-2008 **Outcome:** dismissed **Inspector:** S GIBBS **PINS Ref:** APP/Q1770/A/07/2048344 **Address:** BUSTA TRIANGLE AND EVERSLEY QUARRY, BRAMSHILL, HARTLEY WHITNEY **Appellant:** LAFARGE AGGREGATES LTD **Authority:** HAMPSHIRE CC **Dec Type:** written reps

5. DCS Ref: 100-065-636

Variation in restriction regarding phased area of sand and gravel excavation on permission for Ball Mill Quarry extension Site in predominantly rural setting interspersed with small villages. Harm to landscape character issue being designated ' Settled Farmlands on River Terraces ' with character predominantly horticulture and cropping with gently rolling lowland topography. Main concern relates to proposed Restoration scheme and significant and permanent changes to landscape in the form of 2 lakes from 2 hectares of agricultural land as insufficient fill available for void created. Would create uncharacteristic water features and lose agricultural land. Decides lakes would be in keeping and not appear incongruous. No harm on landscape following restoration.

Loss of 4.7ha of Best and Most Versatile Land (BMVL) allegation withdrawn at appeal with net increase of mainly Grade 2 land. No visual amenity harm. Benefits of landbank need for high quality mineral and biodiversity.

Date: 26-11-2009 **Outcome:** allowed **Inspector:** E ORD **PINS Ref:** APP/E1855/A/09/2105051

Address: LAND KNOWN AS CHURCH FARM SOUTH AND CHURCH FARM WEST AT BALL MILL QUARRY, NEAR GRIMLEY, WORCESTERSHIRE

Appellant: TARMAC LIMITED **Authority:** WORCESTERSHIRE **Dec Type:** inquiry

6. DCS Ref: 100-051-742

Secretary Of State (SOS) decision. Opencast and auger extraction of coal shale and fireclay from 342 hectare over 8 years green to green and land restoration in Green Belt and part of site in Area of High Landscape Value (AHLV). Despite public perception there would be little health risk or loss of residential amenity due to dust, noise or traffic. Not prejudicial to pharmaceutical industry in nearby town. No long term harm to Green Belt. High standard of Environmental Management Plan. Local need for coal at smelter and power station. Benefits outweigh the objections.

Date: 28-11-2007 **Outcome:** allowed **Inspector:** S GIBBS **PINS Ref:** APP/R2900/A/06/2022344 **Address:** LAND BETWEEN Al (T) AND A1068, SHOTTON, NORTHUMBERLAND

Appellant: H J BANKS AND CO LTD **Authority:** NORTHUMBERLAND CC **Dec Type:** call in

Mineral extraction would provide landform park.

The extraction of minerals from 340ha of farmland in Northumberland was approved by the secretary of state despite concerns from local residents that it would have adverse environmental impacts on a nearby town.

The scheme involved extracting 3.4 million tonnes of clay, two million tonnes of shale and 750,000 tonnes of fireclay. The maximum depth of excavation would be 100 metres and extraction would occur over eight years. The land would be restored and a landform public park which would include a land art feature involving a reclining female landform 470m long and 34m high.

The inspector noted that the land art feature had aroused strong feelings. In his opinion it was an imaginative project of substantial artistic merit. In relation to the impact of open cast mining the inspector also held that the perceived adverse impact on local businesses and the local community had been overstated. The appellants had put forward a detailed environmental management plan which would limit the impact of noise, dust and blasting. Although the council was concerned that it would deter important businesses such as pharmaceutical manufacturers from locating to the area, the inspector decided that when assessed on an objective basis there was little reason to conclude that investors would lose confidence due to the presence of an open cast coal mine. The secretary of state agreed.

7. DCS Ref: 100-065-110

Breach of restoration conditions following extraction regarding Review of Old Minerals Permissions (ROMP) under Schedule 13 regarding a) public access b) construction of footpaths, fishing points , bridleway , car parking and c) erect gate , stile and fence at bridleway junction with road. Majority of land had been worked for Fullers Earth and now undergoing

restoration to farmland and 2 lakes. However, Enforcement Notice does not specify with sufficient clarity the steps required for compliance.

Date: 30-10-2009 **Outcome:** allowed **Inspector:** K PEERLESS **PINS Ref:** APP/P0240/C/07/2046698

Address: FULLERS EARTH QUARRY, CLOPHILL, BEDFORDSHIRE

Appellant: THE COMPANY SECRETARY OF LAPORTE INDUSTRIES LTD AND THE COMPANY SECRETARY DEGUSSA UK HOLDINGS LTD **Authority:** CENTRAL BEDFORDSHIRE **Dec Type:** inquiry

An enforcement notice requiring the owners of a reclaimed mineral site in Bedfordshire to provide improved public access was struck down because it was invalid, an inspector therefore also declining to consider the planning merits.

The site had been formerly worked as a quarry and it had been restored to include arable fields and two lakes surrounded by woodland, a flood meadow and open grassland. The council asserted, however, that three conditions imposed on the planning permission had not been discharged. These required the provision of public footpaths through the site together with two fishing points, a bridleway and a car park. The enforcement notice required the works to be undertaken in accordance with a number of plans.

The appellants, after successfully persuading the high court to quash a previous appeal decision, argued that the notice was invalid because it did not tell them fairly and clearly what was required to rectify the breach of control. They made reference to the plans referred to in the notice which required in some cases footpaths to be constructed through the lakes which were considerably larger than originally envisaged.

The inspector noted that the fishing platform would require piles to be driven into the water at varying depths and a boardwalk constructed on top. The approved plans did not show the actual construction of this structure, she recorded, and an enforcement notice could not require development to be carried out which exceeded the approved details, she opined. The footpaths would also need to be realigned and the council confirmed that it would wish to approve such changes which would also fall outside the scope of the notice, she concluded. The appellants had submitted a plan which showed the location and profile of the lakes accurately and this could be used by the council to show where the new footpaths should run together with their means of construction. For these reasons the notice was defective and it was quashed.

In so finding the inspector refused to set out her views on the merits of the appeal. She stated that due to the defective notice her jurisdiction was at an end and she had no basis for setting out her views on other matters which would not be binding on any party.

With regard to the appellants' application for their costs she ruled that the invalidity of the notice had been raised late in the day. The appellants had not raised the matter with the previous inspector and it was first raised at the beginning of the second inquiry. Even then she had not been asked to consider submissions regarding its validity which could have saved inquiry time by omitting the need to consider the planning merits of the case, she noted. The question of the notice being a nullity was not immediately apparent, she held, such that the council had not acted unreasonably in issuing it.

8. DCS Ref: 100-050-806

A) Quarry extension for extraction of sand,gravel and clay and restoration with landfill waste. B) Waste recycling facility (MRF). Site subject to overtipping. Notes operators poor previous management and performance. Need for a) extraction and b) inert waste disposal discussed. a)

Sand and gravel landbank need at only 3.5 years but clay extraction to line adjacent landfill may affect underlying aquifer premature pending availability of clay in adjacent site. b) Notes proximity principle not maintained in PPS10 but site central within economic growth areas. Would affect waste hierarchy but acceptable as used for restoration of excavated sand and gravel site. Whether adequate availability of inert waste to progress restoration discussed and good prospect decided. Option of ' wet' restoration available. Acceptable. B)Would receive industrial and commercial waste at a rate higher than Waste Management Licence(WML) but no limit in existing.permission. Recycling benefit over fill supported.

Date: 11-10-2007 **Outcome:** allowed **Inspector:** A NEWMAN **PINS Ref:** APP/U3100/A/06/2030592 **Address:** FINMERE QUARRY LANDFILL, BANBURY ROAD, FINMERE, MK18 4AJ

Appellant: PREMIER AGGREGATES LTD **Authority:** OXFORDSHIRE CC **Dec Type:** inquiry

Sand and gravel extraction coupled with recycling.

Various appeals involving the extraction of sand and gravel from an Oxfordshire quarry together with the establishment of a materials recycling facility were approved after a need had been demonstrated.

The appellants, as part of the scheme, proposed to extract 490,000 tonnes of sand and gravel. In addition they proposed to extract 42,000m^3 of clay which lay beneath these materials to be used in site engineering to allow the whole of the quarry to be restored to agriculture. They claimed that in the past the restoration of the quarry had not accorded fully with relevant planning permissions and had been over-tipped with inert and other waste. They stated that dismissing the appeal would mean that the company would fail financially and as a consequence restoration of the site would not occur despite a previously tipped area being subject to enforcement action.

In dealing with this matter first, the inspector expressed his dislike at the appellant's suggestion that planning permission should be granted even if the schemes were harmful in order to ensure full restoration of the land and rectify previous breaches of planning control. He held that this was a particularly "unattractive" argument which did not carry significant weight.

With regard to the planning merits he agreed that there was a need for further mineral extraction and for the disposal of inert waste. The proposed materials recycling facility would receive commercial and industrial waste with up to 60% being recycled and the remainder going into landfill. In his view, this type of facility was supported by national planning polices and the council's waste strategy and was worthy of support.

9. DCS Ref: 100-065-052

Secretary Of State (SOS) redetermination. Extraction of sand and gravel; construct access and banks; restoration to lakes , woodland and fields. Green Belt countryside.S&G Landbank; whether site in a Mineral Resource Area. Residential amenity discussed and decides noise level and dust generated acceptable subject to conditions; no appreciable effect on local economy from proposal; permission would overall reduce heavy goods vehicle movements between counties improving sustainability noting each lorry bringing fill would leave with won mineral; extraction not an inappropriate development with only marginal loss of openness from material and plant, acceptable for 6 year period; significant weight to landbank need which cannot be satisfied from any other identified site; discussion as to whether scheme would be premature to Minerals Plan but acceptable but not premature as only at consultation stage with no early prospect of submission. Succeeds.

Date: 27-10-2009 **Outcome:** allowed **Inspector:** J WATSON **PINS Ref:** APP/Q1770/A/06/2014823 **Address:** LAND AT DOWNTON MANOR FARM, MILFORD-ON-SEA, HAMPSHIRE

Appellant: NEW MILTON SAND AND BALLAST **Authority:** HAMPSHIRE CC **Dec Type:** call in

The secretary of state allowed an appeal, following its recovery, involving the extraction of sand and gravel in the Hampshire green belt after concluding that there was a need for the development.

The county council had refused planning permission on the basis that the site did not lie within a preferred area for mineral extraction and because it would have an adverse impact on the local economy. The secretary of state originally decided in 2007 that permission should be refused. However, this was quashed by the High Court. The inquiry was re-opened and the second inspector recommended that permission should be granted after concluding that the impact on the green belt would be transitory and the county's landbank fell below the seven years required under planning policy. He also concluded that if the appeal were to be dismissed the New Forest area would be dominated by two suppliers who controlled 98 per cent of the sand and gravel reserves. This near monopoly situation would be avoided if the appellants were able to increase production by 100,000 tonnes per annum.

The secretary of state agreed that there was a need for the scheme and there was little evidence to suggest that it was premature in advance of the preparation of more up-to-date development plan documents dealing with mineral extraction. The impacts on local residents and the economy would not be materially adverse, he concluded, and accordingly, decided that the appeal should be allowed.

10. DCS Ref: 100-049-914

Unauthorised peat extraction from 26 hectare of moorland designated as candidate Special Area of Conservation (SAC). No planning permission ever granted but Lawful Development Certificate (LDC) issued for use of part of land for works, plant storage and bagging of peat. Section 52 Agreement to regularise peat extraction did not amount to legitimate expectation that use was authorised or that enforcement would not occur. No Human Rights breach. Requirement to cease removal of peat extracted in last 4 years unreasonable.

Date: 17-08-2007 **Outcome:** dismissed **Inspector:** B WILKINSON **PINS Ref:** APP/Y2003/C/07/2049385 **Address:** LAND AT CROWLE MOORS, CROWLE, NORTH LINCS

Appellant: MR R CROW AND MR J CROW **Authority:** NORTH LINCOLNSHIRE **Dec Type:** inquiry

Legal agreement no bar to enforcement action.

An enforcement notice which sought to restrict the extraction of peat from land in Lincolnshire was upheld, an inspector concluding that a legal agreement signed in 1988 did not authorise the continued extraction.

The appeal related to 26ha of land which formed part of the Humberhead peatlands. Approximately half of the site had been subject to peat extraction over many years. The peatlands formed part of a larger area which was recognised as an internationally important nature conservation zone. In 2002 the local planning authority, having received technical reports regarding the peat digging, decided that it should cease on the appeal site. An enforcement notice was issued together with a stop notice.

The appellant claimed that the council could not take enforcement action by virtue of a legal agreement which had been signed between the main parties in 1988. He stated that the agreement authorised the continued use of the land for peat extraction and in 1988 the council had resolved not to take enforcement action. He stated that although no planning permission for the development had been granted and a LDC had not been issued, the agreement had led the appellant to conclude that so long as the terms of the agreement were adhered to, peat extraction could continue. The appellant had not breached the terms of the agreement, it was claimed, and since the legal agreement regulated the use of the land there was no basis for taking enforcement action.

The council, on the other hand, stated that section 171A of the Town and Country Planning Act defined a breach of planning control as the carrying out of development without having first obtained planning permission. The extraction of peat was not authorised by a planning permission, it stated, and a LDC had not been issued to confirm that it was lawful through the passage of time. The legal agreement signed in 1988 did not give rise to a legitimate expectation on behalf of the appellant that extraction could continue indefinitely, the council asserted. The agreement did not constitute a grant of planning permission for the extraction nor restrain it from taking enforcement action in the future, it was argued.

The inspector agreed that the principle of legitimate expectation did not arise. The council had agreed to tolerate but not to authorise the extraction of peat. However, there was nothing in the agreement to suggest that this tolerance was to last in perpetuity, the inspector decided. The agreement did not amount to a grant of planning permission. Nor did it constitute a certificate of lawfulness, he ruled. If it did, then the appellants would have effectively sidestepped the need to obtain planning permission while obtaining significant benefit from the extraction of the material, he opined. The appellants had no legal right to assume that the situation should continue indefinitely and since they had not submitted an environmental assessment regarding the impact of the extraction he ruled that planning permission could not be granted for the continuance of the use.

11. DCS Ref: 100-064-562

Secretary of State (SoS) recovered. Surface mining (opencast) in part Area of Outstanding Natural Beauty (AONB) countryside. 900,000 tonnes of coal and 250,000 tonnes of fireclay. Part Scheduled Ancient Monument (SAM) site. National Mineral landbank need and likelihood of continued demand into forseeable future. Notes benefit in reduced CO_2 emissions. No contracts but likely use in nearby power station. Notes short duration with little harm to area character and overall benefit to landscape following restoration with 5.8kms of trees and hedgerows and remediation of of unstable coal mined land. Natural screening , mitigation measures for noise, dust, blasting and vibration and short duration render scheme acceptable in terms of amenity and visual impact on AONB setting. Notes setting of nearby listed buildings, SAM, Church and conservation areas would be preserved and benefit of £500,000 to community projects.

Date: 06-10-2009 **Outcome:** allowed **Inspector:** A MEAD **PINS Ref:** APP/C3240/A/08/2090405

Address: SITE AT WEST OF TELFORD, 250M SOUTH OF THE M54 JUNCTION 6-7, 100M WEST OF THE SETTLEMENT OF NEW WORKS, TELFORD

Appellant: UK COAL MINING LTD **Authority:** TELFORD & WREKIN **Dec Type:** call in

The secretary of state allowed an appeal by UK Coal Mining Ltd which involved extracting 900,000 tonnes of coal, notwithstanding that part of the site fell within the Shropshire Hills AONB.

The appellants claimed that the council had exaggerated the potential impact the scheme would have on the landscape and upon the AONB. It stated that only 7 per cent of the appeal site lay within the AONB and the area had been affected by previous mineral workings some of which were within the designated area. The AONB within the site comprised three poorly restored agricultural fields which were hardly distinguishable from undesignated land. The scheme would bring substantial benefits in allowing the land to be restored to something approaching its former condition, they asserted.

The Secretary of State decided that coal formed an important part of the country's energy policy and there was every likelihood that a need for it to be sourced locally would continue. The ability to reduce reliance on imported coal was also a significant benefit, he opined. The impact of the scheme would be temporary lasting under three years in duration and following restoration the overall character of the landscape would be improved including the natural beauty of the AONB. Overall, allowing the scheme to proceed would be in the public interest.

12. DCS Ref: 100-064-526

Extraction of sand and sandstone and restoration with non polluting (inert) soil and demolition waste at quarry in agricultural Green Belt. Notes extant 1990 permission for continued extraction and fallback. Notes extant permission has condition for operation to cease by 2015 yet proposal for 2025 and likely to increase traffic volumes, however, proposed restoration scheme superior. Supply need for material discussed and likely demand established. Weight given to shortfall of landfill capacity in area but sufficient availability of infill material to make restoration possible within time period. Air quality health harm in terms of NO_2 and PM_{10} heavy goods vehicle traffic and dust arising discussed with weight to Air Quality Strategy. Little weight to residents perceived fears as no substantive evidence; amenity acceptable with ameliorating conditions. Restoration benefits noted.

Date: 29-09-2009 **Outcome:** allowed **Inspector:** L RODGERS **PINS Ref:** APP/H4315/A/09/2097209 **Address:** BOLD HEATH QUARRY, MILL GREEN LANE, BOLD HEATH, ST HELENS, WA8 3UP **Appellant:** D MORGAN PLC **Authority:** ST HELENS **Dec Type:** inquiry

Permission was granted for the extraction of sand and sandstone in the St Helens green belt after an inspector decided that an extant approval was a very important material consideration.

Permission had been granted in 1990 for the extraction of sand and sandstone from a site of approximately 40ha. The quarry was partially worked with almost one and half million cubic metres being extracted. In 1999 and 2002 the council issued two enforcement notices claiming that the method of working did not accord with the permission because the mineral was being mined to a greater depth. There had been no significant extraction since 2002 although the permission remained extant to 2015. A subsequent application proposing to work parts of the quarry to a greater depth and restoring it with inert materials was refused in 2007. The council accepted that the 1990 permission remained capable of being implemented and that it was possible, by using materials within the quarry, to raise the ground levels to comply with the terms of the enforcement notices. The appellants stated that this would happen in the event that the appeal was dismissed.

The inspector noted that it was common ground between the parties that the appeal proposal involved a superior restoration scheme. The approved scheme would result in an alien landform, the quality of the land would be poor through inadequate drainage and mineral deposits 20 metres below ground would be sterilised from extraction in the future. The appeal proposal involved extracting a much smaller area of the quarry which would allow productive agricultural

land to be retained, he noted. These benefits had to be weighed against the fact that the quarry would operate 10 years longer than the approved scheme.

He decided that there was a need for the minerals and the main issue, therefore, was the impact on the amenity of local residents. The council claimed that nitrogen dioxide arising from vehicle emissions and fine airborne particles from dust would adversely affect local residents. However, the appellants had demonstrated that any such increases would fall within the air quality strategy for the UK. Although local residents might have a perception that they would be harmed by the scheme this fear was not substantiated by the available evidence, he concluded.

13. DCS Ref: 100-063-898

2 year temporary permission for opencast coal extraction and 5 year restoration. Green Belt countryside. Issues of a) visual impact and noise amenity loss; b) highway safety; c) whether inappropriate in Green Belt d) benefits to outweigh a) Visual harm to nearby neighbours outlook not mitigated by baffle mounds noting , visual harm of acoustic mounds themselves and loss of attractive view despite no right to view. Notes commonplace for temporary periods to be extended for mineral working with greater harm Noise acceptable if limited to 55dB max restriction at noise sensitive properties b) although junctions acceptable, nearby rural roads unsuitable for increased use by heavy goods vehicle generation noting hazard of sharp bend with likely vehicular, pedestrian or equestrian conflict. Concludes that as scheme would not be environmentally acceptable would, therefore, not to be of highest standards and considered as c) inappropriate in Green Belt. Minimal benefits not outweigh.

Date: 13-08-2009 **Outcome:** dismissed **Inspector:** J KING **PINS Ref:** APP/H4315/A/09/2094074 **Address:** OLD GARSWOOD ROAD, GARSWOOD, WIGAN, MANCHESTER WN4 OXS

Appellant: LEM MINING & RESTORATION LTD **Authority:** ST HELENS **Dec Type:** inquiry

A council's claim that the visual amenity of residents would be adversely affected by the opencast extraction of coal in Greater Manchester was upheld by an inspector despite the planning application having been recommended for approval.

In relation to development of the appeal site the council had commissioned landscape consultants to provide advice and to review an environmental statement. They concluded that while various assessments had certain shortcomings, the council did not have a substantive case upon which to refuse planning permission. This was principally because the impact would occur over a two year period when the mineral was extracted followed by a five year period of restoration. However, the council decided that permission should be refused due to the visual impact it would have on local residents.

The inspector noted that the landscape and visual evidence provided at the inquiry was not provided by landscape professionals and while the information provided by the respective witnesses was of some assistance, the inspector decided that he had mainly to rely upon his own judgement based on the extensive site inspection. He decided that his main concern focused on a mound which would be constructed to reduce noise. This would be six metres high with a very steep slope and, in his opinion, while it would not have a visually overpowering and overbearing impact on the occupiers of a number of properties, it would nonetheless form a major and alien element in their outlook. This would adversely affect their visual amenity for the period of the extraction, he determined, and was by itself sufficient to withhold permission.

In so finding he also expressed doubts as to whether the extraction could be completed in two years. In his experience, it was commonplace for minerals development to take longer to

complete than initially estimated. There was always some uncertainty over geology which could cause practical difficulties and the weather was naturally unpredictable which meant that the potential impacts on local residents could be longer than forecast.

He did decide that the appellants were entitled to a partial award of costs. The council had been advised by its officers that impact from noise could be controlled through the use of conditions. It had not disputed the noise assessment in support of the application and the council's witness conceded that there could be no objection in principle to the scheme subject to imposing appropriate conditions. This amounted to unreasonable behaviour, he ruled.

14. DCS Ref: 100-062-894

Extension to sand quarry and restoration to agricultural Green Belt countryside. Whether operation of existing quarry had been at a sufficiently high environmental standard discussed. More restrictive conditions could be attached to ameliorate harm. Proposal not inappropriate as existing quarry could be well restored in accord with PPG2. Mineral extraction a temporary activity , would not create urban sprawl and would return land to open state following extraction. Limited increase in heavy goods vehicle traffic would not unacceptably harm the amenity of residential occupiers along lane access route.

Date: 11-06-2009 **Outcome:** allowed **Inspector:** S ROSCOE **PINS Ref:** APP/E1855/N08/2069139

Address: LAND ADJACENT TO CHADWICH LANE QUARRY, CHADWICH LANE, MADELEY HEATH, BROMSGROVE **Appellant:** SALOP SAND AND GRAVEL LTD **Authority:** WORCESTERSHIRE **Dec Type:** inquiry

15. DCS Ref: 100-062-108

Variation of time limit condition for extension to mineral quarry and land restoration in Green Belt countryside. Not inappropriate development. Restoration, levels and timescales subject to condition. No harm to neighbour residential amenity from noise and dust due to low key operation, limited vehicle movements, wheel wash and any harm outweighed by benefits of quarrying high quality stone in limited supply. No harm to highway safety due to reasonable visibility, adequate highway and low speeds avoiding conflict with pedestrians and traffic.

Date: 07-05-2009 **Outcome:** allowed **Inspector:** E ORD **PINS Ref:** APP/A4710/A/08/2089116 **Address:** BEACON LODGE QUARRY, LONG LANE, SOUTHOWRAM, HALIFAX

Appellant: ENVIROWASTE SERVICES LTD **Authority:** CALDERDALE **Dec Type:** hearing

Stone extraction period extended.

A condition imposed on a quarrying permission in the West Yorkshire green belt was extended to allow local stone to be mined for a further 10 years.

The condition, which had been imposed on a permission issued in 2001, stated that the quarrying of stone should cease by the end of 2006 with the site's restoration by the end of 2011. The appellant wished to enable stone extraction to continue to 2016 with restoration of the site by 2017.

The inspector noted that the site contained a small stone quarry in an area rich with a particular form of sandstone which was a highly valued resource which characterised many buildings in the area. The appellant had presented unchallenged evidence that this material was in short supply and, in her view, allowing the mineral to be mined locally accorded with the principle of sustainable development. If the quarry were to close and the site restored it was probable that the

stone would be lost forever, she opined. Subject to ensuring that the land was restored to a suitable condition following cessation the development would not harm the green belt or amenity of local residents.

16. DCS Ref: 100-060-594

(a) Re -opening and extension of a former quarry to produce limestone from 6ha of agricultural land and an aggregate recycling operation, and (b) access road. (a) Environmental Statement (ES) satisfactory. No loss of grade II quality agricultural land due to restoration proposals. No harm from groundwater pollution. No harm to parachuting activities at adjacent airfield. No harm to residential amenity from dust or noise subject to acoustic screening and dust action plan. No harm to res amenity from HGV traffic given acceptability of alternative access road (b). Costs awarded as Local Authority did not substantiate refusal of (a).

Date: 23-02-2009 **Outcome:** allowed **Inspector:** A MEAD **PINS Ref:** APP/Y2003/A/08/2072544 **Address:** LAND TO THE WEST OF REDBOURNE ROAD, HIBALSTOW, BRIGG DN20 9NN **Appellant:** MR A BORRILL **Authority:** NORTH LINCOLNSHIRE **Dec Type:** inquiry

Lack of clarification leads to costs award.

In allowing two appeals involving an extension to a quarry and construction of a haul road in Lincolnshire, an inspector decided that the council had acted unreasonably in its opposition to the scheme.

The council had refused permission for both developments. However, it presented no evidence and formally withdrew its objections to the scheme. The appellants claimed that only after the appeals had been lodged did the council eventually state that it had all the information necessary for it to assess the application for the quarry. The appellants asserted that they had no way of knowing what information was lacking because this only became clear upon the receipt of the council's pre-inquiry statement. Moreover, the appellants stated that all the information, including the number of tonnes extracted per annum, was known to the council.

The inspector decided that the council should have made known to the appellants what additional information was required prior to refusing permission. It was unreasonable for the appellants to have to appeal because the council had not requested clarification on the likely pattern of traffic movements to and from the quarry, he decided. Moreover, it was not clear that the council had considered the imposition of a condition restricting the total amount of stone quarried each year. The facts indicated that the council had refused permission on the basis of the impact of heavy lorry movements on the amenity of residents, the inspector held, and then failed to seek additional information on whether this was justified or could be overcome by conditions. This amounted to unreasonable behaviour.

17. DCS Ref: 100-060-432

Small scale extension of existing sand and gravel working , disposal of silt and restoration to lake. Erection of site office and ground conveyor and retention of existing conveyor to processing plant. Green Belt countryside. Not inappropriate and workings would not harm openness in long term when lake created which would be in keeping with area. Would aid 7 year landbank. Conveyor would not appear unduly harmful and acceptable for 3 year period. Setting of village conservation area and listed buildings maintained. No significant visual impact harm on wider area. Noise amenity loss from nearby dwellings acceptable with suitable mitigating measures including hours of operation. No dust harm as worked wet. Notes benefit of reduced heavy goods vehicle traffic. No flood risk subject to conditions.

Date: 16-02-2009 **Outcome:** allowed **Inspector:** A BOYLAND **PINS Ref:** APP/T0355/A/08/2085429

Address: LAND BOUNDED BY THE CUT AND THE M4, UPPER BRAY ROAD, BRAY, MAIDENHEAD THE BRAY TRIANGLE **Appellant:** SUMMERLEAZE LTD **Authority:** WINDSOR & MAIDENHEAD **Dec Type:** written reps

Extraction would contribute to seven year land supply.

The extraction of sand and gravel within the Berkshire green belt was judged necessary by an inspector who concluded that it would contribute to the need to maintain a seven year supply of the minerals.

The appellants argued that under a mineral local plan there was a requirement for the county to demonstrate a seven years' supply of sand and gravel. Although the local planning authority stated that there was just over seven years' supply, this included a site which did not have planning permission, the appellants asserted, and should not be included in the supply calculation. If this site were excluded less than seven years' supply remained, they claimed.

The inspector noted the council's further claim that the demand for sand and gravel had declined due to the deteriorating economic conditions. However, the scheme involved the equivalent of four months' supply of the two minerals and would assist in ensuring that the seven year target was maintained, he ruled. Whether other more acceptable sites existed was a matter for consideration through the plan-making process, he concluded.

Although the site lay within the green belt the surrounding area was already subject to mineral extraction and its open character was influenced by the close proximity of the M4 motorway. The appellant already operated a mineral processing facility adjacent to the proposed extraction areas and, in his view, the scheme could be seen as a small scale extension to an existing facility. It would not materially harm the openness of the area and after extraction the land would form a lake which in the longer term would support the area's importance for wildlife.

18. DCS Ref: 100-059-256

Temporary storage, maintenance and processing shed at stone quarry in Green Belt. Harm to Green Belt due to size and elevated location on the skyline not outweighed by operational need.

Date: 29-12-2008 **Outcome:** dismissed **Inspector:** R MORDEY **PINS Ref:** APP/A4710/A/08/2084165 **Address:** ELLAND EDGE QUARRY, LOWER EDGE ROAD, BRIGHOUSE

Appellant: RAND & ASQUITY **Authority:** CALDERDALE **Dec Type:** written reps

19. DCS Ref: 100-059-068

Interim Development Order (IDO) section 78 to restart limestone quarry operation on ridge site in countryside. Appeal to remove conditions on Water Management Plan restricting a) depth of mineral extraction on land subject to IDO and b) maximum dB(A) 30 level of noise from pumping operations on nearby dwellings a) Secretary Of State (SOS) disagrees with Inspector that a depth restriction was unreasonably restrictive where no such restriction on parent permission. No objection in principle to impose a depth restriction on IDO through WMP noting lack of Council evidence on hydrological or environmental grounds for restriction. No need. Condition deleted. b) Condition varied to maximum permitted noise level of 40dB(A) to preserve amenity as would be no more than 10dB(A) above background.

Date: 09-12-2008 **Outcome:** allowed **Inspector:** J WOOLCOCK **PINS Ref:** APP/G3300/A/06/2014207

Address: LAND AT CANNINGTON PARK QUARRY, CANNINGTON, BRIDGWATER, SOMERSET TA5 2QF **Appellant:** CASTLE HILL QUARRY COMPANY LTD **Authority:** SOMERSET CC **Dec Type:** call in

20. DCS Ref: 100-059-096

Re-opening of 'blended in' limestone quarry on isolated hill-side in National Park to provide aggregate for permitted track nearby. Harm to sustainability from working of quarry due to landbank of crushed rock in the region not outweighed by harm from additional heavy goods vehicle movements to transport aggregate to site. Concerns regarding setting of precedent. Some harm to quiet enjoyment of the National Park from working of quarry. Harm to character & appearance of National Park.

Date: 21-11-2008 **Outcome:** dismissed **Inspector:** J RUSSELL **PINS Ref:** APP/C9499/A/08/2079951 **Address:** FOSSDALE FARM, HAWES, NORTH YORKSHIRE, DL8 3LY

Appellant: IM R CANNON ESQ **Authority:** YORKSHIRE DALES N.PK **Dec Type:** written reps

Limestone extraction for track construction refused.

The re-opening of a limestone quarry in North Yorkshire for a temporary period to enable a farmer to improve one of the tracks on his land was rejected, an inspector concluding that the use of material from an existing quarry was more acceptable.

The appellant stated that an area extending to approximately 1,000m^2 would be excavated to a depth of less than three metres. This would produce approximately 2,500m^3 of limestone which would be used re-grade a track used by customers undertaking wildfowl shooting on the moors. He stated that the extraction could be undertaken in approximately six weeks and it would bring economic benefits by allowing easier and more permanent access to the moors by people on foot and in vehicles.

The inspector decided that there appeared to be an acceptable supply of limestone in the county which equated to a landbank of approximately 31 years. In accordance with the regional spatial strategy the provision of new limestone quarries could only be supported in exceptional circumstances. Although the use of local material for the track accorded with sustainable development objectives in improving an existing track, this argument could be used too often, she opined thereby giving rise to an undesirable precedent. Given that resumption of limestone extraction would harm the character of the landscape and undermine the amenity of some local residents, this added weight to her decision to dismiss the appeal.

21. DCS Ref: 100-057-620

Extraction of sand and gravel; erection of gravel processing plant; inert landfill and restoration and creation of site access. Green Belt countryside. Increased heavy goods vehicle traffic but safety risk. Amenity safeguarded as route would be around village centres with last heavy goods vehicle movements around 1700 hrs. Hours generally compatible with residential along haul route and extraction operations noise in accord with Environmental Statement. Notes weight to data in GoodQuarry.com. Air quality discussion with proposal having a slightly adverse impact in Air Quality Monitoring Area but not outweigh landbank need on designated site. Proposal

acceptable subject to conditions including amenity, heavy goods vehicle movements, access route signage and highways.

Date: 02-09-2008 **Outcome:** allowed **Inspector:** S ROSCOE **PINS Ref:** APP/T0355/A/08/2065394

Address: LAND TO THE EAST OF MORTON ROAD AND TO THE WEST OF THE COLNE VALLEY WAY, HORTON, BERKSHIRE

Appellant: AGGREGATE INDUSTRIES AND JAYFLEX AGGREGATES LIMITED **Authority:** WINDSOR & MAIDENHEAD **Dec Type:** inquiry

22. DCS Ref: 100-057-240

Sand extraction from 68 hectare and progressive restoration to agricultural in Green Belt and coastal plain. No harm to character or appearance of landscape. Not inappropriate in Green Belt. As a temporary feature the quarry would not be intrusive in views from local footpaths. Loss of residential amenity due to visual impact, noise and add traffic generation could be ameliorated by measures secured by conditions and a Section 106 Agreement. Any detrimental impact on air quality would be adequately addressed by a Dust Monitoring Scheme and Action Plan. Substantial weight given to demonstrated need for high quality sand.

Date: 13-08-2008 **Outcome:** allowed **Inspector:** E SIMPSON **PINS Ref:** APP/Q2371/A/07/2035175 **Address:** LAND AT EUXTON, NR CHORLEY, LANCASHIRE PR7 6HQ

Appellant: TARMAC LIMITED **Authority:** LANCASHIRE CC **Dec Type:** inquiry

Significant change to green belt site from extraction allowed.

The extraction and processing of approximately four million tonnes of high grade sand in the Lancashire green belt was secured even though an inspector decided that it would have a significant impact on the landscape.

The inspector noted that national planning policy on mineral development required a land bank of sand and gravel to be maintained and capable of meeting seven years' demand. In Lancashire the current land bank of high quality sand ranged between three and half and four and a half years which was well below the governments target. The appeal site presented a windfall opportunity, he concluded, and without it being developed additional pressure would be placed on the existing resources of high quality sand which were already unable to meet the seven year supply target, he opined.

Set against the need for the scheme was the adverse impact the development would have on the countryside with major changes in the local landform and the creation of a large void which would have to be restored. The scheme proposed permanent water features and wetland habitats including some woodland. Over time, these would form an interesting part of the landscape and would not be alien or intrusive features, he decided. Subject to a raft of conditions controlling site working, noise and dust he also decided that the impact on local residents would not be unacceptable.

23. DCS Ref: 100-056-422

Breach of hours of operation restriction at sand and gravel extraction with haul road. Notes loading of heavy goods vehicle an ' operation ' outside hours of permission in original 1986 permission. Not immune under 10 year rule as breach occurred from June 2003 with adoption of new work shift pattern. Amenity of 2 nearby dwellings affected by movement along haul road

out of hours during weekdays. BS4142 methodology to assess heavy goods vehicle movements preferred. Little weight given to expert noise surveys. Unacceptable night time disturbance likely as over 10Dba above background. Permission varied to permit movements and loading up to 23.00 hrs from 1800 hrs during week days.

Date: 07-07-2008 **Outcome:** allowed **Inspector:** B BARNETT **PINS Ref:** APP/Q2500/C/07/2039818 **Address:** NORTON BOTTOMS QUARRY, NORTON DISNEY, LINCOLNSHIRE, LN6 9JN

Appellant: C & G CONCRETE LTD **Authority:** LINCOLNSHIRE CC **Dec Type:** inquiry

24. DCS Ref: 100-053-901

Removal of conditions related to interim restoration of part of former sand and gravel site on land at former quarry. Possible landfill supply need with interim restoration required to prevent dereliction. Full restoration sought. Residential amenity benefit from reduced disturbance of shortened period. Acceptable to omit interim restoration subject to weed management (ragwort) ,wildlife survey relating to onsite great crested newts and site inspection conditions. Notes surveys and licensing procedures from Natural England likely to lead to delay of over one year.

Date: 06-03-2008 **Outcome:** allowed **Inspector:** A FREEMAN **PINS Ref:** APPN3500/A/07/2047600 **Address:** LAND AT PARK FARM FORMER QUARRY, LONDON ROAD, THORINGTON, SUFFOLK, IP17 3QU **Appellant:** WASTE RECYCLING GROUP LTD **Authority:** SUFFOLK CC **Dec Type:** hearing

Interim restoration plan deleted from quarry site. An inspector allowed an appeal which enabled the owners of a quarry in Suffolk to avoid undertaking interim restoration of the site due in part to the presence of great crested newts.

The company stated that final restoration of the site would occur in 2011. Under these circumstances it claimed that there was no overriding benefit in undertaking an interim scheme of restoration. They stated that one of the pits within the site contained several hundred great crested newts and the relocation of the animals would lead to a delay of well over a year which would also preclude its ability to undertake partial restoration.

The inspector noted that when the permission for mineral extraction had been given the county council had not decided on whether there was a need for further landfill capacity. Accordingly, since the appeal site had the potential to be filled it was decided that an interim scheme of restoration should be undertaken to enable the possibility of it being used in the longer term as a landfill site. He also recorded that the appellants should have undertaken the scheme some years ago and this had not been completed.

In his view, although the failure to implement partial restoration would mean that it would not be available for the grazing of sheep, the pragmatic approach was to omit any interim restoration given that the appellants had to restore the site completely by September 2011. This would also allow time for the newts to be relocated.

25. DCS Ref: 100-052-929

Costs only decision following withdrawal of appeal for open cast coal and fireclay extraction. Late withdrawal of appeal was unreasonable and resulted in unnecessary expense for Council and third party (National Trust).

Date: 03-01-2008 **Outcome:** allowed **Inspector:** X SOS **PINS Ref:** APP/H4505/A/06/2024883 **Address:** BYERMOOR FARM, FELLSIDE ROAD, BURNOPFIELD, NEWCASTLE UPON

TYNE **Appellant:** HALL CONSTRUCTION SERVICES LTD **Authority:** GATESHEAD **Dec Type:** hearing

26. DCS Ref: 100-051-966

a) Sand and gravel extraction and eventual restoration by waste filling and b) Sand and gravel extraction and eventual restoration from agricultural land in Green Belt. a) No loss of residential amenity due to noise, dust, traffic or outlook harm. Waste tipping would extend length of operation but would not be inappropriate in Green Belt. a) and b) Depth of excavation could be controlled by condition to avoid groundwater pollution. Any harm to wildlife habitat would be outweighed by long term enhancement. No hazard due to lack of visibility at access.

Date: 07-12-2007 **Outcome:** allowed **Inspector:** G CUNDALE **PINS Ref:** APP/Q2371/A/07/2033871 **Address:** SANDONS FARM, ADLINGTON, CHORLEY

Appellant: RIGSHAW LIMITED **Authority:** LANCASHIRE CC **Dec Type:** inquiry

27. DCS Ref: 100-051-202

Call in - (a) Unauthorised limestone quarry and (b) variation of conditions of 1951 ‘Old Mineral Planning Permission'. (a) Limestone quarrying unauthorised by 1951 consent which allowed only opencast winning and working of lead and fluorspar - limestone removed to access fluorspar should, therefore, be treated as spoil on site and not exported for sale. (b) Incomplete Environmental Statement. Secretary Of State (SOS) disagrees with Inspectors recommendation and no decision will be made until further environmental information is provided in order to comply with requirements of Environmental Impact Assessment (EIA) directive and render any determination lawful.

Date: 13-11-2007 **Outcome:** unknown **Inspector:** A GRAY **PINS Ref:** APP/M9496/C/06/2006067

Address: LAND AT SMALLDALE HEAD QUARRY, BRADWELL, DERBYSHIRE

Appellant: HIGH PEAK SPAR LIMITED AND ERNEST HINCHLIFFE LIMITED **Authority:** PEAK DISTRICT N.PK **Dec Type:** call in

Limestone quarrying not ancillary to fluorspar extraction.

The Secretary of State has accepted her inspectors' recommendation and upheld an enforcement notice directed against the unauthorised winning, working and exportation of limestone from a quarry in the Peak District, finding that it was in breach of a planning permission.

Permission had been granted in 1951 for the winning and working of fluorspar and lead by opencast methods. The appellants argued that the permission allowed the winning and working of ancillary limestone. The inspectors held that this was correct insofar as the fluorspar was inextricably linked with the limestone. However, the limestone which needed to be removed only to gain access to the fluorspar was not inextricably linked to it. As there was no specific grant of permission for the winning and working of limestone this fell to be considered as part of the spoil from the fluorspar mining process, and was to be returned to hollows in the ground under the terms of the permission.

The inspectors referred to the judgment in Thomas David (Porthcawl) Ltd v Penybont Rural District Council in which it was held that every shovelful was a separate mining operation. They ruled that the time for enforcement action, therefore, started with each shovelful, and thus the extraction of limestone had not become lawful.

The appellants expressed concern that upholding the notice would prevent the lawful extraction of limestone. The inspectors asserted that it was not the case, as upholding an enforcement notice could not prevent lawful activities on the appeal site. They stated that it did, however, prevent unlawful activities such as the winning and working and exportation of limestone for its own sake, as opposed to its extraction which was inextricably linked with fluorspar or lead. They decided that on the balance of probability the extraction of limestone was not immune from enforcement action.

28. DCS Ref: 100-050-836

Call in - Salt Mine (24 well heads) and underground Natural Gas store (2 million tonnes), development of 261 hectare of salt marsh/grade 2 -3 agricultural land adjacent river estuary designated Special Protection Area (SPA) , Site of Special Scientific Interest (SSSI) , Ramsar site and development of 8 hectare of docks for seawater pumping station. No harm to sustainable use of minerals. National need for underground gas storage does not outweigh concerns over geological suitability and possible subsidence impact on pipelines and other infrastructure. Insufficient evidence of design detail supported by geological modelling. Harm to public health & safety from inadequate gas migration/explosion risk assessment. Harm to residential amenity from gas dryer noise as Environmental Statement (ES) does not comply with regulations in respect of noise pollution. Harm to character & appearance of salt marsh from crown hole resulting from cavern roof collapses and harm to coastal path from collapse.

Date: 16-10-2007 **Outcome:** dismissed **Inspector:** E SIMPSON **PINS Ref:** APP/Q2371/A/05/1183799 **Address:** LAND AT PREESALL SALTFIELD, STALMINE, WYRE ESTUARY, LANCHASHIRE

Appellant: CANATXX GAS STORAGE LIMITED **Authority:** LANCASHIRE CC **Dec Type:** call in

Gas storage in underground salt mine risky.

The Secretary of State, in refusing to grant planning permission for the creation of a natural gas storage facility created from mining underground salt mines in Lancashire, stated that the appellants had failed to adequately assess the risks associated with geological collapse and subsidence.

The appeal site covered an area of approximately 261 ha to the south of Fleetwood involving predominantly low lying open agricultural land and salt marsh adjacent to the Wyre estuary SSSI and within the Morecambe Bay special protection area. The area had a long history of brine working and until 1994 the salt solution was used in chlorine production. This had created depressions over parts of the land where collapse of underground mines had occurred.

The appellants proposed to create up to 24 caverns, using sea water which would be pumped into the ground. This would dissolve the underground salt and the salt-saturated solution would be pumped into the Irish Sea. This would allow 49.5 million tonnes of salt to be removed, they claimed. Twenty four well heads would need to be created and underground gas distribution pipelines would connect the wellheads with a gas compressor station and up to 1.2 million tonnes of gas would eventually be stored in the caverns. The appellants stated that the scheme would provide an important piece of energy infrastructure given the national need for more gas storage. This was necessary, they stated, in order to avoid running out of gas supplies during very cold winters.

The inspector, in acknowledging that there was a national need for further gas storage, also noted that there was considerable uncertainty associated with operating a facility of the size and nature proposed by the appellants. In particular, he concluded that the information provided by the

appellants in respect of the geology of the area and the hydrological impact was insufficient to enable a decision to be made. The appellants, he opined, had undertaken a detailed desk top assessment but had failed to drill a single deep borehole to provide a three dimensional picture of the geology. Given the absence of this information it was impossible to conclude that the gas storage capacity would be as large as that suggested by the appellants and could indeed achieve less than 20% of the total predicted.

In addition, the inspector recorded his concerns regarding progressive or catastrophic subsidence of the proposed pipe-work. The risk assessment had not considered this as a possibility and it was possible that such events would lead to subsidence at the surface. This would be even greater in the event that one of the caverns collapsed creating a "crown hole" or crater at the surface; a feature which would be incapable of being corrected. In the absence of detailed assessment of the risks of gas migration and the potential for explosion the inspector decided that the site was unsuitable for underground gas storage and the secretary of state agreed.

29. DCS Ref: 100-050-452

Secretary of State (SoS) recovered decision. Extraction of sand and gravel and restoration of woods and lakes. Green Belt countryside. Not inappropriate development No visual impact harm on effect on openness except for bund or visual harm. Supply need as shortfall in 7 year landbank for relevant area. Sustainability benefit of fewer lorry miles and no significant harm from proposed importation of inert waste. No significant on local economy or jobs as modest scale scheme. Notes dust and bund construction noise acceptable with conditions and impact upon nearby holiday parks ok with little effect on visitors attracted. But although site falls within Mineral Resource Area within Core Strategy, site not within a preferred area identified in Plan and need for sand and gravel can already be met at identified sites. Premature to grant extraction prior to new Minerals Plan where new sites are to be identified.

Date: 20-09-2007 **Outcome:** dismissed **Inspector:** A BOYLAND **PINS Ref:** APP/Q1770/A/06/2014823 **Address:** DOWNTON MANOR FARM, MILFORD-ON-SEA, HAMPSHIRE

Appellant: NEW MILTON SAND & GRAVEL **Authority:** HAMPSHIRE CC **Dec Type:** call in

Mineral need denied in non-preferred area.

The secretary of state decided that permission should be denied for the extraction of sand and gravel in the Hampshire green belt because the site did not lie within a preferred area for extracting the minerals.

The council had refused permission solely on the basis that the appeal site lay outside the preferred areas for extracting sand and gravel within its minerals local plan. However, the appellants argued that there was a significant shortage in mineral reserves leading to less than a seven year supply as required under national planning policy guidance.

The secretary of state agreed that the scheme would not be inappropriate to the green belt and noted that the land would be restored to countryside following completion of the extraction. The need for additional sand and gravel supported the grant of planning permission, she reasoned, and there were no overriding environmental impacts. However, she decided that the need for additional extraction could be met from sites within the preferred areas and to grant permission would be premature, prejudicing the proper identification of new preferred areas in a forthcoming minerals development plan document.

30. DCS Ref: 100-049-959

Removal of time limit conditions on 2 Interim Development Order (IDO) permissions and one Review of Old Mineral Permission (ROMP) for stone extraction from 2 adjacent stone quarries. Insufficient additional environmental information supplied to properly assess the effects of continued working beyond 2042 to 2064.

Date: 23-08-2007 **Outcome:** dismissed **Inspector:** A GRAY **PINS Ref:** APP/G3300/A/06/2013655 **Address:** MOONS HILL QUARRY, STOKE ST MICHAEL, SHEPTON MALLETT

Appellant: JOHN WAINWRIGHT AND COMPANY LIMITED **Authority:** SOMERSET CC **Dec Type:** hearing

31. DCS Ref: 100-049-891

Building limestone quarrying in open countryside. Insufficient need and doubts over quality of stone to justify harm to character and appearance of area and loss of residential amenity due to noise particularly during early stages of quarrying.

Date: 14-08-2007 **Outcome:** dismissed **Inspector:** J KING **PINS Ref:** APP/Q2500/A/06/2028334 **Address:** BOILING WELLS FARM, SOUTH RAUCEBY, SLEAFORD, LINCOLNSHIRE NG34 8QX **Appellant:** MR D BELLAMY **Authority:** LINCOLNSHIRE CC **Dec Type:** hearing

Need for high quality limestone uncertain.

The development of a limestone quarry in Lincolnshire was refused planning permission, an inspector finding that it would adversely affect the amenity of local residents and it was unclear whether it would deliver high quality building stone as asserted by the appellant.

The appellant stated that the quarry would be able to deliver high quality stone for buildings with the remainder being used for crushing for aggregate. He highlighted the nature of the limestone found in a quarry nearby together with outcropping limestone in a stone storage area. The latter contained some fracturing on the upper layers. However, it was more thickly bedded in the lower layers and, therefore, more suitable for use in high quality buildings.

The inspector decided that the evidence in respect of the quality of the stone which would be produced was inconclusive. Although government guidance referred to an increased demand for building stone, there was no evidence to indicate a shortage of high quality limestone. In his opinion the working, screening and crushing associated with the proposed quarry would lead to unacceptable noise levels at two dwellings close to the site and this could not be mitigated through the use of conditions, he decided.

32. DCS Ref: 100-049-714

1.7 hectare extension to sand quarry and realignment of temporary haul road in Area of Great Landscape Value (AGLV). Little long term additional harm to character or appearance of AGLV or setting of town in area long associated with mineral extraction. Some harm to views from national footpath route. No loss of residential amenity due to dust, impaired air quality or traffic generation. Some short term loss of residential amenity due to noise acceptable and would be reduced by bunds. Any harm outweighed by need for sand.

Date: 01-08-2007 **Outcome:** allowed **Inspector:** J WOOLCOCK **PINS Ref:** APP/B3600/A/06/2020101 **Address:** RUNFOLD SOUTH QUARRY, GUILDFORD ROAD,

RUNFOLD, FARNHAM, SURREY **Appellant:** SITA UK LIMITED **Authority:** SURREY CC **Dec Type:** inquiry

Building sand need overrides landscape impact.

An extension to an existing quarry in Surrey to provide additional sand for use in the building industry was secured due to a significant shortfall in the county's supply of the material.

The appeal site comprised part of an open field which lay to the west of an active landfill area. The council was concerned that the cumulative impact of the scheme having regard to its landscape impact, noise and dust would erode the quality of the local environment. In addition it stated that the scheme would add only 387,000 tonnes or just 4.6months supply of building sand to the landbank and this was insufficient to outweigh the environmental harm.

The inspector noted that there was less than four years supply of sand based upon existing supplies. This was well below the seven year supply required under national mineral planning guidance. In his opinion the scheme would make a significant contribution to meeting the overall need. Therefore, while the scheme would be out of character with the area until the site was restored and would have some impact on the amenity of local residents, this would be for a limited duration. The need to ensure an adequate supply of sand should be given significant weight he concluded and he, therefore, allowed the appeal.

33. DCS Ref: 100-050-454

Unauthorised limestone extraction in National Park. 1952 Permission for winning and working of fluorspar and barytes and working of lead and any other minerals won in the course of working. Whether permission, therefore, included Limestone discussed. Definition of ' winning ' and ' working ' in English Clays court case noted but key 'in the course of ..' discussed. Fails as only working not winning of limestone given in permission and only then in the context of winning of fluorspar and barytes as only a secondary operation. Viability discussed as price for limestone presently exceeds that of fluorspar but adds weight as to primary purpose for extraction. Notice varied.

Date: 26-04-2007 **Outcome:** allowed **Inspector:** D BALDOCK **PINS Ref:** APP/M9496/C/06/2017966 **Address:** LAND AT BACKDALE, HASSOP, LONGSTONE EDGE

Appellant: BLEAKLOW INDUSTRIES LIMITED **Authority:** PEAK DISTRICT N.PK **Dec Type:** inquiry

34. DCS Ref: 100-047-734

Surface coal mine from agricultural land in open countryside Green Belt. No harm to Green Belt from appropriate development. No harm to openness of Green Belt due to temporary nature of loss of openness. No harm to rural character. No harm to wildlife (Hobby bird) or from loss of habitat due to benefits of long term restoration proposals. No harm from noise & dust, water drainage, hydrology of reservoir. No harm from traffic generation. No harm from loss of agricultural land quality of 3b and 4. No harm from cumulative impact in conjunction with other minerals development.

Date: 13-03-2007 **Outcome:** allowed **Inspector:** A PHILLIPSON **PINS Ref:** APP/U1050/A/05/1176293 **Address:** LAND NORTH AND SOUTH OF BELL LANE, SMALLEY (KNOWN AS "LODGE

Appellant: UK COAL MINING LTD **Authority:** DERBYSHIRE CC **Dec Type:** inquiry

Opencast mining allowed in view of restoration benefits.

The Secretary of State accepted her inspector's recommendation and granted planning permission for surface mine coal extraction in the Derbyshire green belt, finding that the environmental effects were not unacceptable.

The Secretary of State agreed with the inspector that there would be a material loss of openness for the duration of the extraction period but that it would be fully made good on the restoration of the site. She considered the evidence about whether or not the proposal would cause harm to the hobby, which was a statutorily protected bird, but decided that although there would be some impact the mitigation proposed would serve to ensure that the proposal would not result in material harm to the species.

She also agreed that although the loss of fourteen aged or veteran trees would be regrettable, and contrary to PPS9, it would be acceptable having regard to their relative isolation in biodiversity terms.

The secretary of state accepted that the restoration proposals would ensure that in the medium to longer term, the ecological and biodiversity value of the site would be significantly enhanced.

35. DCS Ref: 100-047-406

Removal of condition on planning permission for opencast coal mining from 33 hectare in countryside. Extension of time limit for restoration would unacceptably prolong harm to character and appearance of countryside.

Date: 21-02-2007 **Outcome:** dismissed **Inspector:** J WOOLCOCK **PINS Ref:** APP/M2460/A/06/2013640 **Address:** LOUNGE DISPOSAL POINT, A512 ASHBY ROAD, ASHBY-DE-IA-ZOUCH

Appellant: UK COAL MINING LIMITED **Authority:** LEICESTERSHIRE CC **Dec Type:** inquiry

Restoration delay unacceptable at opencast site.

An appeal by UK Coal Mining Ltd which sought extra time to implement a restoration scheme at an opencast mine in Leicestershire, was dismissed despite the company's claims that the site could be suitable for redevelopment.

The proposal involved delaying by up to three years the implementation of an approved scheme of restoration. The company stated that if this were delayed until 2008, a full and careful consideration of the site's redevelopment opportunities could have been undertaken. This included the construction of a strategic rail interchange and the company stated that it would be unreasonable to undo any restoration works which might be useful to the operation of such a facility.

The inspector decided that the site gave the appearance of "gross dereliction on a substantial scale" involving partially demolished buildings and associated rubble. This was compounded by large areas of hardstanding and an incongruous bund which had an engineered and unnatural appearance. He decided that although the site's potential for development as a freight interchange was a material consideration.

36. DCS Ref: 100-046-552

Variation of condition to extend period for retention of concrete batching plant in 'mothballed' state at sand & gravel quarry in the open countryside Harm to rural character from industrial

'paraphernalia' in a prominent & highly visible location. Harm outweighed by need for waste management centre including use of recycled aggregates, in accordance with Waste Plan.

Date: 03-01-2007 **Outcome:** allowed **Inspector:** R YUILLE **PINS Ref:** APP/Z1585/A/06/2023627 **Address:** SANDON QUARRY, SOUTHEND ROAD, SANDON, CM2 7TE

Appellant: BRETT CONCRETE LTD **Authority:** ESSEX CC **Dec Type:** written reps

Concrete batching plant removed from mothball.

An appeal involving the retention of a "mothballed" concrete batching plant at a quarry in Essex was allowed after an inspector decided that the site could ultimately be used as a waste management centre which might require the use of such a facility.

The batching plant formed part of a largely disused sand and gravel quarry where extraction, processing and concrete production ceased between 1996 and 2001. The planning permission for the batching plant required its removal by 1994 or upon cessation of the aggregate production. In 2004 permission was granted to retain the plant in a mothballed state for 12 months and the appellants sought an extension to 2009.

The inspector noted that the plant comprised a complex assembly of ramps, conveyors, bins and tanks and its continued presence would harm the character and appearance of the countryside, he held. However, the site was identified in a waste plan as a preferred location for waste management and while there was no certainty that it would subsequently be used as such, he decided that the concrete batching plant might play a role as part of the centre. The management of waste was an important challenge and the opportunity to integrate the recycling of aggregates on the site should not be ruled at this stage he determined and granted a permission allowing its retention until early 2010.

37. DCS Ref: 100-044-323

Interim Development Order (IDO). Appeal against restoration and aftercare conditions following extraction of sand and clay. Although conditions referred to whole site notes that there was a separate scheme of conditions for landfill element. He, therefore, concentrated on extraction site conditions as it would be inappropriate to vary landfill element conditions. Conflicts between the two sets of conditions e.g. hours of operation was decided by landfill conditions to take precedent on part of site identified for same. Extraction site conditions varied including increase of extraction rate ,time limit, visual amenity, land stability, .ecology, ground and surface water, noise, dust, traffic generated and highways.

Date: 12-09-2006 **Outcome:** allowed **Inspector:** J MCPHERSON **PINS Ref:** M23/2/010 **Address:** LAND AT STAR WORKS, KNOWL HILL, READING, BERKSHIRE

Appellant: IBSTOCK WARNER LTD **Authority:** BERKSHIRE CC **Dec Type:** written reps

38. DCS Ref: 100-042-533

SURFACE MINE/OPENCAST-WOODED COUNTRYSIDE.I.A OK-LITTLE WEIGHT TO BENEFITS OR SUPPLY NEED-SIGNIF SHORT TERM ENVIRON IMPACT BUT OK AS SHORT PERIOD OF OPERATION/ECOLOGY OK WITH MITIGATION

MEASURES-NO IRREVERSIBLE LOSS OF BEST AGRIC LAND-NOISE DISTURBANCE OK WITH+10DB COND-DUST POLLUTION OK WITH MEASURES-HYDROLOGY/DRAINAGE OK-MINOR EFFECT ON RIGHTS OF WAY-NO CUM IMPACT/SET PRECEDENCE HARM-OK WITH SEC 106

Date: 25-05-2006 **Outcome:** allowed **Inspector:** M OROURKE **PINS Ref:** APP/M2460/A/04/1165643 **Address:** PROPOSED LONG MOOR SURFACE MINE SITE BETWEEN THE VILLAGES OF RAVENSTONE, HE **Appellant:** UK COALMINING LTD **Authority:** LEICESTERSHIRE CC **Dec Type:** hearing

The Secretary of State agreed with her inspector's decision and allowed an opencast coal mine between three villages because its effects would be of short duration and the proposal complied with development plan policy. The inspector noted that the proposal was for the extraction of 725,000 tonnes of coal by surface mining methods. Following initial site preparation which would take six months, extraction would continue for a further two years and eight months. There would be progressive backfilling and soil replacement with final restoration taking a further six months. The whole operation would, therefore, be completed in three years and eight months. The secretary of state considered that there would be significant adverse impacts in terms of landscape and visual impact and potential dust nuisance that would affect those living and working close by. However, she took the view that these effects would be for the relatively short period of the active life of the site, and could be limited and controlled during that time by the mitigation and management measures proposed to be put in place. She considered that with appropriate conditions and a legal agreement there would be no conflict with the objectives of development plan policies for the countryside, residential amenity, ecology, archaeology, highways, the national forest and rights of way.

39. DCS Ref: 100-042-332

UNAUTHORISED MINERALS EXTRACTION & WASTE DISPOSAL AT GOLF COURSE IN OPEN COUNTRYSIDE-ESTAB THAT DEVT GOES BEYOND ORIGINAL PLANNING PERMISSION FOR GOLF COURSE WORKINGS & NO OUTSTANDING PLANNING PERMISSION EXISTS FOR DISPOSAL OF WASTE/MINERAL WORKINGS

Date: 04-05-2006 **Outcome:** dismissed **Inspector:** A BRAGG **PINS Ref:** APP/X0360/C/05/2002714

Address: WOODCRAY MANOR GOLF COURSE, FINCHAMPSTEAD ROAD, WOKINGHAM, BERKSHIRE

Appellant: EUROGOLF COURSE CONSTRUCTION AND MANAGEMENT LIMITED **Authority:** WOKINGHAM **Dec Type:** inquiry

Enforcement notices directed at the removal of topsoil and the disposal of waste at a golf course were upheld because there was no outstanding planning permission that would permit the reconstruction of the course. An inspector saw that part of the original golf course was still evident but substantially overgrown. He observed that over a sizeable area of the site the ground surface was unevenly covered with waste. This was particularly evident on parts of the former fairways, where topsoil appeared to have been pulled to the side and waste material spread unevenly over the land, significantly raising the level and diminishing the effect of the original moulding which had been formed between the fairways. The appellant sought to explain the work as a 'work in progress' to restore the golf course and remedy problems with dry soil conditions in the summer months. However, the inspector held that they were very substantial works, involving the addition of a considerable volume of additional waste material and could by no stretch of the imagination be regarded as maintenance or even applying corrective treatment to specific parts of the course. The inspector judged that the realisation of the approved landform had been achieved in 1998. He reasoned that the planning permission was spent and that it did not provide any entitlement for the reworking of previously finished areas. He concluded that at the date of issue of the enforcement notices, there was no outstanding planning permission which

could be exercised which would permit the deposit of waste material or the working of topsoil on any part of the appeal land as part of the approved golf course construction.

40. DCS Ref: 100-041-307

REVIEW OF OLD MINERALS PERMISSIONS-VARIATION OF CONDS ON 3 DORMANT PPS FOR COAL/CLAY/SAND/GRAVEL EXTRACTION & WASTE TIPPING/RESTORATION FROM 25HECTARE IN GREEN BELT-ONLY INERT WASTE TO BE TIPPED-SCHEME FOR RESTORATION TO BE AGREED BEFORE COMMENCEMENT OF MINERAL WINNING-HOURS OF WORKING TO BE CONTROLLED

Date: 27-02-2006 **Outcome:** allowed **Inspector:** M HILL **PINS Ref:** M25/1/74

Address: HOCKLEY NO.2 QUARRY, TAMWORTH, DOSTHILL, WARWICKSHIRE

Appellant: WALBROOK TRUSTEES (JERSEY) LTD **Authority:** WARWICKSHIRE CC **Dec Type:** call in

41. DCS Ref: 100-041-743

SEC 18 LAND COMPENSATION ACT/CERT AAD FOR SAND & GRAVEL EXTRACTION ON FORMER MILITARY AIRFIELD ADJACENT ROAD IN AGLV-NEED TO MAINTAIN A SUPPLY OF LANDBANK OF MINERALS WOULD NOT HAVE BEEN OF OVERRIDING IMPORTANCE-WHEN IN 1992 SITE STILL PART OF AIRFIELD ALTERNATIVE DEFENCE USES REMAINED BUT SINCE THIS TIME CIRCUMSTANCES CHANGED-CAAD SHOULD, THEREFORE, BE CANCELLED & REPLACED BY 'NEGATIVE' COND

Date: 15-02-2006 **Outcome:** allowed **Inspector:** G SELF **PINS Ref:** APP/B/03/R2520/100060 **Address:** LAND AT THE FORMER SWINDERBY AIRFIELD, SWINDERBY, LINCOLNSHIRE **Appellant:** THE HIGHWAYS AGENCY **Authority:** NORTH KESTEVEN **Dec Type:** inquiry

The deputy prime minister cancelled a certificate of appropriate alternative development issued by a council which stated that a new sand and gravel quarry would be permitted in part of a former RAF airfield. Part of the land was required to enable the dualling of the A46 road by the Highways Agency. However, the landowner had applied under section 18 of the Land Compensation Act 1961 seeking confirmation of the type of development which would have been permitted in 1992 (the date at which the proposed improvements had been confirmed), in the event that the land was not to be compulsorily acquired for the road improvement. The council had issued a certificate confirming that planning permission would have been granted for a new sand and gravel quarry. However, the Highways Agency as the authority who proposed to acquire the land, appealed to the deputy prime minister against this decision, arguing that it was not well founded and conflicted with the development plan policies. After taking legal advice the council also agreed that its decision was flawed and accepted that planning permission would not have been granted for a new quarry. This position was resisted by the landowner who claimed that the terms of the certificate as granted should remain unchanged. The inspector agreed that at the relevant date in 1992 the site was located within an area of great landscape value and there had been no overriding need to increase the supply of sand and gravel. In his view planning permission would only have been granted for works associated with the dualling of the A46 road and his recommendation that a revised certificate be issued, was accepted by the deputy prime minister.

42. DCS Ref: 100-041-361

CONGLOMERATE & ROCKSAND EXTRACTION FROM 8.97HECTARE IN GREEN BELT/SLA-NOT INAPPROPRIATE IN GREEN BELT-NO LONG TERM HARM TO CHARACTER OR APPEARANCE OF SLA-LONG TERM BENEFIT TO NATURE CONS & GAIN OF WOODLAND PLANTING-NO HARM DUE TO SMALL LOSS OF AGRIC LAND-NOT PREMATURE OF EMERGING MINERALS LP-ANY HARM OUTWEIGHED BY NEED & REDUCTION IN HAULAGE DISTANCES

Date: 08-02-2006 **Outcome:** allowed **Inspector:** M HILL **PINS Ref:** APP/D3450/A/04/1159951 **Address:** CAPTAINS BARN FARM, WESTON COYNEY, STAFFORDSHIRE

Appellant: C E & J M DALE Authority: STAFFORDSHIRE CC **Dec Type:** inquiry

The deputy prime minister allowed an appeal involving the extraction of conglomerate and sandstone in the green belt, concluding that the need to ensure a continuous supply of the minerals was an important consideration.The appeal site comprised part of a farm and it was proposed to extract minerals from approximately nine hectares. The appellants proposed to extract conglomerate and rocksand to provide material for their ready mix concrete and concrete panel production plant. This would involve mining 1.2 million tonnes with subsequent restoration.The inspector agreed with the council that the scheme would have some harmful impact on the visual and recreational amenity of the area. However, this would be relatively limited and would not be permanent. High environmental standards have been set in the design of the scheme, he concluded and the restoration proposals had been carefully thought through. Overall the openness to the green belt would be slight and in his view it did not involve an inappropriate form of development.He stated that in the event that the deputy prime minister decided that the scheme was inappropriate, the combination of the need for the mineral, the appellant's proposal to expand their panel manufacturing business, the difficulties in sourcing the mineral from elsewhere, the nature conservation benefits and reduction in lorry movements to and from the site and the existing factory, all amounted to the very special circumstances necessary to justify permission.The deputy prime minister decided that the scheme was not inappropriate to the green belt. The harm to visual and recreational amenity was outweighed by the need to secure an adequate and consistent source of supply and he, therefore, allowed the appeal.

43. DCS Ref: 100-040-924

EXTRACTION OF SAND & GRAVEL PLUS CONCRETE BATCHING PLANT ADJACENT SIMILAR EXISTING & LAND FILL SITES IN OPEN COUNTRYSIDE-MINERAL NEED OUTWEIGHS PUBLIC OPINION & CUMULATIVE IMPACT DUE TO TRAFFIC GENERATION/NOISE/DISTURBANCE

Date: 26-01-2006 **Outcome:** allowed **Inspector:** A NEWMAN **PINS Ref:** APP/X2600/A/04/1166832 **Address:** LAND AT STANNINGHALL FARM, STANNINGHALL ROAD, FRETTENHAM, NORFOLK **Appellant:** TARMAC LTD **Authority:** NORFOLK CC **Dec Type:** inquiry

An inspector in allowing an appeal for the extraction of sand and gravel, rejected concerns of the local planning authority that the cumulative impact of the scheme would give rise to unacceptable environmental and highway conditions. The county council argued that although the scheme when viewed in isolation was acceptable, the cumulative impact of the proposed mineral working when taken in conjunction with three existing mineral extraction areas in the

vicinity, rendered the scheme unacceptable by virtue of increase noise, traffic and harm to the countryside. The inspector noted that although the site was located in an attractive area, it was not of special quality and the scheme had been designed to minimise the visual impact through a system of screen bunds, planting and progressive phased working. Moreover the other sites which were being worked were up to five kilometres distant, he noted such that the cumulative impact in terms of noise, dust and traffic would be significantly reduced. With regard to the question of need, the inspector noted a High Court ruling relating to another site in the county, where it had been held that the county council's planning policies sought to maintain a seven year supply of sand and gravel. This had led one of his colleagues to reject another scheme elsewhere in the county on the basis that at the time of that decision, the supply stood at 7.1 years, he recorded.

However, he decided that although allowing the appeal would increase the supply of sand and gravel to 8.2 years, this would nonetheless fall within the necessary degree of flexibility imparted by the county council's policies which did not seek to impose an automatic prohibition on schemes even when mineral supply exceeded seven years. It would contribute towards ensuring a secure and steady supply of material to the construction industry and he allowed the appeal.

44. DCS Ref: 100-039-724

REMOVAL CONDITIONS ON PLANNING PERMISSION FOR CLAY EXTRACTION-USE TO BE ONLY FOR ADJACENT BRICKWORKS-EXPORTING OF CLAY WOULD LEAD TO UNCONTROLLED INCREASE IN HEAVY GOODS VEHICLE TRAFFIC CAUSING LOSS OF RESIDENTIAL AMENITY-WOULD BE PREJUDICIAL TO SUPPLIES OF BRICK CLAY CONTRARY TO MINERALS & WASTE LP

Date: 01-11-2005 **Outcome:** dismissed **Inspector:** A MEAD **PINS Ref:** APP/Q1770/A/05/1171912 **Address:** SELBORNE CLAY PIT, HONEY LANE, SELBORNE, ALTON

Appellant: FORESTRY INTERNATIONAL EXPORTS LTD **Authority:** HAMPSHIRE CC **Dec Type:** inquiry

45. DCS Ref: 100-039-177

VARIATION OF HOURS/DAYS OF WORKING & ACCESS CONDITIONS OF PLANNING PERMISSION FOR AGGREGATE QUARRY IN OPEN COUNTRYSIDE-NIGHTIME WORKINGS WOULD HARM RESIDENTIAL AMENITY DUE TO NOISE/DISTURBANCE BUT WEEKEND DAYTIME WORKING WOULD BE OK IN LIGHT OF MINERAL NEED AS LONG AS 2 YEAR PLANNING PERMISSION ONLY IN ORDER TO ASSESS EFFECTS

Date: 28-09-2005 **Outcome:** dismissed **Inspector:** A MEAD **PINS Ref:** APP/H3700/A/05/1178973 **Address:** MANCETTER QUARRY, QUARRY LANE, MANCETTER, ATHERSTONE, WARWICKSHIRE **Appellant:** TARMAC LTD **Authority:** WARWICKSHIRE CC **Dec Type:** written reps

An inspector allowed an appeal extending the period of daytime weekend working at a quarry. However, two other appeals seeking longer hours of work were dismissed. The quarry had been operating since the 1800s and was one of two quarries in the region producing high polished value aggregate which was used widely on road surfaces where higher skid resistance was required. The company sought in one of the appeals to extend the period of working at the coking plant at weekends and the inspector held that this was acceptable for a two year trial

period. However, he held that wider relaxation of working hours and vehicle movements would undermine the amenity of local residents.

46. DCS Ref: 100-039-961

VARIATION OF CONDITIONS ON PLANNING PERMISSION FOR LIMESTONE EXTRACTION FROM SITE IN SSSI EXTENSION TO QUARRY & INCREASE IN OUTPUT WOULD HARM SITE OF SPECIAL SCIENTIFIC AREA & GREAT CRESTED NEWT HABITAT-NO OVERRIDING NEED FOR LIMESTONE-APPEAL SHOULD NOT BE ALLOWED TO ENABLE REVISION OF REMAINING CONDITIONS AS RECOMMENDED BY INSPECTOR

Date: 11-08-2005 **Outcome:** dismissed **Inspector:** C HUGHES **PINS Ref:** APP/Q2500/A/03/1136223 **Address:** ANCASTER NO 1 QUARRY, WILSFORD HEATH, LINCOLNSHIRE

Appellant: MR LYTE **Authority:** LINCOLNSHIRE CC **Dec Type:** hearing

47. DCS Ref: 100-038-292

UNAUTHORISED EXCAVATION OF BANK-NOTICE PROPERLY SERVED AND REASONABLY ACCURATE-REQUIREMENT TO REPLACE HEDGE THAT HAD NOT EXISTED UNREASONABLE-NO FEE FOR DEEMED APPLICATION

Date: 26-07-2005 **Outcome:** dismissed **Inspector:** V AMMOUN **PINS Ref:** APP/L1765/C/04/1159305 **Address:** LAND ADJACENT TO COLLINS LANE, HURSLEY, HAMPSHIRE

Appellant: T & D DEVELOPMENTS **Authority:** WINCHESTER **Dec Type:** inquiry

48. DCS Ref: 100-038-093

UNAUTHORISED EXTRACTION OF MATERIALS IN OPEN COUNTRYSIDE-10.6HA.SITE OUTSIDE SETTLEMENT-ESTABLISHED THAT OPERATIONS FALL WITHIN THE SCOPE OF THE PREVIOUS 1999 PLANNING PERMISSION & ARE, THEREFORE, LAWFUL-NOTES NEED FOR CHANNEL TUNNEL RAIL LINK-NO REQUIREMENT THAT DETAILS OF CONTRACT FOR SUPPLY TO CTRL SHOULD BE SUPPLIED 1ST TO COUNCIL FOR THEIR APPROVAL-WOULD REQUIRED A SECTION 106 AGMNT-

Date: 19-07-2005 **Outcome:** allowed **Inspector:** M JOYCE **PINS Ref:** APP/W2275/C/04/2000205 **Address:** LAND AT ALLENS BANK, OFF DENNES LANE, LYDD, KENT

Appellant: BRETT AGGREGATES LTD **Authority:** KENT CC **Dec Type:** inquiry

An inspector quashed an enforcement notice issued by a County Council which required a company to cease extracting sand and gravel from a 10.6ha site, because it fell within the scope of a planning permission granted in 1998.The county council claimed that the permission only permitted the extraction of the materials provided they were used in the construction of the channel tunnel rail link. It asserted that the permission by reference to a range of documents submitted in support of it, required the appellants to submit details of a contract demonstrating that the materials would be so used and in the absence of any agreement, the permission could not lawfully be implemented.For the appellants it was claimed that the permission granted in

1998 had three distinct elements. Firstly the extraction of sand and gravel. Secondly its processing on site and finally its delivery by rail to the tunnel. In respect of the latter, the destination of the materials had nothing to do with how the development had to be carried out

and completed it was claimed. Accordingly the permission could lawfully be implemented without requiring an agreement to demonstrate that they would be used in connection with the tunnel.The inspector decided that the permission was clear and unambiguous. In his view it was wholly unreasonable to suggest that in construing its scope, reference should be had to all the documents listed within it. Moreover even if there was a requirement within the supporting documentation for a contract to have been agreed, there was no mechanism for ensuring that it could be enforced by the council. Consequently the extraction of the aggregates was authorised by the 1998 planning permission, he decided and he quashed the permission.

49. DCS Ref: 100-038-108

EXTN TO QUARRY OUTSIDE PERMITTED AREA TO FOLLOW VEIN OF FUORSPAR-EXPOSED HILLSIDE IN NATIONAL PK NOT AN E.I.A DVLPT-SUPPLY NEED NOT YET DEFINED/NOT IN CURRENT MPG OR IN PUBLIC INTEREST-ADEQUATE SUPPLY OF ACID GRADE FLUORSPAR IN AREA-NO NEED FOR LIMESTONE EXCAVATION-VIS IMPACT NOT MITIGATED BY SCREENING WKS-NOISE & DISTURBANCE FROM DVLPT & HEAVY GOODS VEHICLE TRAFFIC HARM PEACE & ENJOYMENT OF NATIONAL PK-RISK TO NEARBY ANCIENT MONUMENT

Date: 29-06-2005 **Outcome:** dismissed **Inspector:** G CUNDALE **PINS Ref:** APP/M9496/A/04/1150265 **Address:** TEARSALL QUARRY, BONSALL MOOR, NEAR MATLOCK, DERBYSHIRE

Appellant: SLINTER MINING CO LTD **Authority:** PEAK DISTRICT N.PK **Dec Type:** inquiry

The deputy prime minister refused to sanction the extraction of fluorspar from a quarry in a National Park, concluding that it would undermine the natural beauty of the area. The existing quarry extended to over six hectares and had been worked since the early 1970s. It had been partly backfilled and restored and the appellants claimed that fluorspar had been found on the northern edge of the quarry. They claimed that it was in the public interest to extract the mineral because there was a national need and an international shortage of acid grade fluorspar to supply industry. An inspector agreed that there was a need to maintain supplies. However, the overall amount extracted would be very small compared with known supplies within the UK. Set against this limited benefit would be harmful visual impact of the extraction area which would be visible to visitors to the area. This would undermine their enjoyment of an area of considerable natural beauty and in addition would adversely affect the setting of nearby lead mines which had been designated as a scheduled ancient monument. The deputy prime minister agreed. He decided that the appeal scheme was not in the public interest and there was no overriding need to permit the extraction to proceed. The noise, activity and traffic movements which would be associated with the mining operation would compromise the quiet and peaceful qualities of the area, contrary to its national park status.

50. DCS Ref: 100-037-656

UTILISATION OF COAL MINE METHANE TO GENERATE ELECTRICITY-GREEN BELT-LEVEL COMPOUND ENCLOSED BY SCREENING MOUNDS-SOME STRUCTURES STILL VISIBLE-NOT A CONVENTIONAL MINING

OPERATION-STRUCTURES USED TO PROCESS NOT EXTRACT A RESOURCE-NOISE GENERATION OK-WEIGHT TO 2003 ENERGY WHITE PAPER/PROVIDE BENEFICIAL ENERGY RESOURCE & AVOID GREENHOUSE GAS-TEMP PLANNING PERMISSION TO 2012-SPECIAL CIRCS OUTWEIGH LTD HARM

Date: 02-06-2005 **Outcome:** allowed **Inspector:** D BALDOCK **PINS Ref:** APP/H4315/A/04/1168895 **Address:** LAND SOUTH OF UNION BANK FARM COTTAGE, WARRINGTON ROAD, BOLD HEATH **Appellant:** BIOGAS TECHNOLOGY LTD **Authority:** ST HELENS **Dec Type:** written reps

The use of green belt land surrounding for the generation of electricity using methane gas from underground coal mines, won support from an inspector who placed significant weight on the government's national energy policy. The scheme would involve the erection of a group of structures on a level compound partly enclosed by screening mounds. It would include the installation of up to three electricity generation units, an office and store, oil and coolant storage tanks, a gas extraction unit and a substation. The inspector decided that the scheme did involve development which was inappropriate in a green belt and consequently very special circumstances had to be proven. He noted that the government's energy white paper published in 2003, provided strong support for electricity generated from coal mine methane. It would provide a beneficial energy resource and avoid damaging greenhouse gas emissions, he opined. He also noted that the development would only be temporary and would be partially screened. Although it would have some impact on the openness of the area, the very considerable environmental benefits outweighed this harm he decided and the appeal was allowed.

51. DCS Ref: 100-037-065

A)VARIATION OF USE FOR STORAGE OF AGRICULTURAL IRRIGATION WATER ONLY CONDITION OF PLANNING PERMISSION FOR SAND/GRAVEL EXTRACTION TO FORM RESERVOIR B)PART CHANGE OF USE TO ALLOW STORAGE OF DRINKING WATER-NOT PREMATURE & WOULD NOT PREJUDICE OUTCOME OF FORTHCOMING MINERALS DEVELOPMENT PLAN RE SAND & GRAVEL RESOURCES-APPROPRIATE FORM OF FARM DIVERSIFICATION BENEFITTING RURAL ECONOMY

Date: 29-04-2005 **Outcome:** allowed **Inspector:** D TESTER **PINS Ref:** APP/E0535/A/04/1157904 **Address:** SUTTON GAULT IRRIGATION RESERVOIR, THE GAULT, SUTTON, ELY, CAMBRIDGESHIRE **Appellant:** P J LEE & SONS **Authority:** CAMBRIDGESHIRE CC **Dec Type:** written reps

Permission was granted for the use of a reservoir formed after the extraction of sand and gravel, as a supply of public drinking water, an inspector amending a condition which permitted its use only for spraying nearby agricultural land. The appellants had planning permission to extract water from a watercourse. They proposed to store the water in the reservoir, which was under construction following the extraction of sand and gravel. However, they stated that it would have a capacity of 909,000m3 and consequently would be capable of supplying drinking water to new housing developments within the county. The county council, however, was concerned that if permitted, it would lead to increased pressure for further sand and gravel extraction. This was because the reservoir would not be able to supply the level of demand from both agricultural and domestic users and consequently this was likely to generate a planning application for further extraction to enable the reservoir to be enlarged. The inspector decided that the scheme provided the opportunity to establish whether the supply of drinking water was a viable proposition. It would not set a precedent for allowing more sand and gravel to be extracted because permission would still have to be granted by the council.

Moreover the Environment Agency and Office of Water Services Regulator (Ofwat) had not confirmed that they would grant licences to the appellants enabling them to supply public drinking water. Consequently the proposals were not premature and would not create an undesirable precedent, he determined.

52. DCS Ref: 042 131 259

VARIATION OF LENGTH OF EXTRACTION PERIOD/RESTORATION METHODS/WASTE INFILL CONDITIONS OF PLANNING PERMISSION FOR MINERAL EXTRACTION QUARRY IN OPEN COUNTRYSIDE NO WASTE PROCESSING ON SITE CONDITION IS STILL NECESSARY EXTRACTION PERIOD ETC SHOULD NOW BE REDETERMINED

Date: 21 01 2005 Outcome: partly allowed, partly dismissed Inspector: D WARD PINS Ref: APPN4630/A/03/1136568 Address: ALDRIDGE QUARRY, BIRCH LANE, STONNALL, WALSALL, WS9 ONF

Appellant: RMC AGGREGATES Authority: WALSALL Dec Type: written reps

Appendix 6 Evaluation of mineral policy statements – questionnaire

Mineral Planning Policy Statement 1: Planning and Minerals – Policy

Part A

1) Consider the policies under each paragraph heading in MPS1 (not including annexes to the document) and answer the following questions where relevant:

   i. Is Government policy being effectively implemented in your area? What is your evidence for this / can you provide examples?
   ii. Are there any barriers that prevent / hinder the implementation of this policy and if so, what are they? This may include (but is not limited to) barriers such as interpretation of the policy etc.
   iii. What are the direct and indirect benefits of how this policy has been implemented? Please support your answer with one or two key examples.
   iv. What are the negative direct and indirect impacts and consequences of how this policy has been implemented? Please support your answer with one or two key examples.
   v. Are there any policies in this section which you feel are given more weight in regional or local planning documents or in the application of policy when submitting or determining applications at the local level?

2) Are there any policies in MPS1 which do not contribute to meeting the overarching Government Objectives for minerals? Please explain your answer. Space is provided in the blank table at the end of Part A for your answer.

3) Are there any policies in the annexes to MPS1 which give rise to concern in their implementation (for example, the proposed level of landbanks required for sand and gravel)? Space is provided in the blank table at the end of Part A for your answer.

4) Please extend the table provided at the end of Part A to provide any general comments that you would like to make on other MPS1 policies and their implementation.

Part B

1) Please consider questions 1i to 1iv above with regard to paragraph 8 of MPG3. Space is provided in the second part of this questionnaire for your analysis.
2) Please undertake the same exercise for any other national minerals policies contained within the MPS and MPG documents (and annexes) **that are particularly relevant to you**. Please add extra sheets if required.

If you have any questions about the questionnaire please contact Dr Joseph Mankelow (e-mail: jmank@bgs.ac.uk, Tel: 0115 936 3582).

Please return the questionnaire (preferably by e-mail to nkay@bgs.ac.uk) on or before Monday 1st March 2010.

Please send postal returns to: Naomi Idoine, British Geological Survey, Keyworth, Nottinghamshire. NG12 5GG. ***Many thanks for your time and support.***

NAME: **AFFILIATION:** **E-MAIL:** (Please include so that we can follow up any queries with you personally).

PART A

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
5	The policies in this statement should be taken into account by regional planning bodies (RPBs) in the preparation of Regional Spatial Strategies (RSSs), by the Mayor of London in relation to the Spatial Development Strategy for London, and by MPAs and local planning authorities (LPAs) in the preparation of local development documents (LDDs) and any development plans which are being taken forward to adoption under transitional arrangements. The policies in this statement will also be important to the minerals industry and all other interested parties. They are material to decisions on individual planning applications and if reflected in a LDD and RSS, will form part of the statutory Development Plan. Where these policies are not reflected adequately in forward planning, or taken sufficiently into account in relevant development control decisions, the Secretary of State may use her powers of direction to seek changes to the documents or may intervene in the consideration of planning applications.	
10	To achieve the objectives and measures set out above, RPBs, MPAs and LPAs should carry out their functions in relation to the preparation of plans and in relation to development control, in accordance with the national policies for minerals planning set out below:…	
12	**Survey:**	
	• use the best available information on mineral resources within their areas and consider the social, environmental and economic benefits and constraints of working them; • undertake regular assessments of the reserves for which planning permission has been granted for all mineral workings in their areas, taking into account the need for, distribution, production and uses of, each type of mineral, while maintaining mineral operators' reasonable needs for commercial confidentiality; • assess the range, volumes and availability of waste material which may exist within reasonable proximity and which could provide suitable alternatives to primary minerals.	i
		ii
		iii
		iv

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
		v
13	**Safeguarding:**	
	• define Mineral Safeguarding Areas (MSAs) in LDDs, in order that proven resources are not needlessly sterilised by non-mineral development, although there is no presumption that resources defined in MSAs will be worked; • encourage the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in MSAs; • in unitary planning areas, define MSAs in LDDs to alert prospective applicants for non-minerals development to the existence of valuable mineral resources; • in two-tier planning areas, include policies and proposals to safeguard mineral resources within MSAs in county LDDs and show MSAs in district LDDs. Counties should define Mineral Consultation Areas (MCAs) based on their MSAs. MCAs should also be reflected in district LDDs. Where a planning application is made for non-mineral development within a MCA, the district should consult the	i
		ii

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
	county on the application; • district councils responsible for spatial planning of land defined in MSAs should not normally include policies and proposals in their LDDs for non-minerals development in those areas, or sensitive development around safeguarded mineral areas, where such policies would affect the potential for future extraction of minerals; • safeguard existing, planned and potential rail heads, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals, particularly coal and aggregates, including recycled, secondary and marine-dredged materials; • identify future sites to accommodate the above facilities and reflect any such allocations in the LDDs of district councils in two-tier planning areas. District councils in these areas should not normally permit other development proposals near such safeguarded sites where they might constrain future use for these purposes; • safeguard existing, planned and potential sites including rail and water-served, for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material. Where appropriate, identify future sites for these uses	iii iv v
14	**Protection of heritage and countryside:**	

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
	• where minerals development is proposed within, adjacent to, or where it is likely to significantly affect a European site (potential and classified Special Protection Areas, candidate and classified Special Areas of Conservation and listed Ramsar Convention Sites), take account of the advice contained in PPS9 and the accompanying joint ODPM/Defra Circular; • do not permit major mineral developments in National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites except in exceptional circumstances. Because of the serious impact that major mineral developments may have on these areas of natural beauty, and taking account of the recreational opportunities that they provide, applications for these developments should be subject to the most rigorous examination. Major mineral development proposals should be demonstrated to be in the public interest before being allowed to proceed. Consideration of such applications should therefore include an assessment of: i the need for the development, including in terms of national considerations of mineral supply and the impact of permitting it, or refusing it, upon the local economy; ii the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need for it in some other way; iii any detrimental effect on the environment, the landscape and recreational opportunities and the extent to which that could be moderated. Planning authorities should ensure that for any planning permission granted for major mineral development in these designated areas, the development and all restoration should be carried out to high environmental standards, through the application of appropriate conditions, where necessary, and be in character with the local landscape and its natural features. Proposals in these areas which are not considered to be major mineral developments should be carefully assessed, with great weight being given	i ii

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
	in decisions to the conservation of the natural beauty of the landscape and countryside, the conservation of wildlife and the cultural heritage and the need to avoid adverse impacts on recreational opportunities. • do not normally grant planning permission for a proposed mineral development on land within or outside a Site of Special Scientific Interest (SSSI), if it is likely to have an adverse effect on a SSSI (either individually or in combination with other developments); • ensure that the statutory protection given to many individual wildlife species under a range of legislative provision, and the special protection afforded to European protected species, is fully taken into account when considering mineral proposals which might affect them; • consider carefully mineral proposals within or likely to affect regional and local sites of biodiversity, geodiversity, landscape, historical and cultural heritage; • note that while there is a general presumption against inappropriate development in the Green Belt, which should not be approved except in very special circumstances, mineral extraction need not be inappropriate development, nor conflict with the purposes of designating Green Belts. However, in permitting mineral developments in Green Belts, authorities should ensure that high environmental standards are maintained during operation, and that sites are well restored to after-uses consistent with Green Belt objectives. All mineral-related developments in the Green Belt should be assessed against the policies in PPG2; • adopt a presumption in favour of the preservation of listed buildings, nationally important archaeological remains (including scheduled ancient monuments) in situ, and their settings, if mineral proposals would cause damage or have a significant impact on them, unless there are overriding reasons of national	iii iv

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
	importance for the development to proceed; • do not permit mineral proposals that would result in the loss or deterioration of ancient woodland, not otherwise statutorily protected, unless the need for, and benefits of, the development in that location outweigh the loss of the woodland habitat; • take account of the value that existing woodland offers in terms of amenity and habitat, when considering mineral proposals; • where significant development of agricultural land is unavoidable, seek to use areas of poorer quality land in preference to that of a higher quality, except where this would be inconsistent with other sustainability considerations. In order to achieve the intended after-use, a high standard of restoration would be required; • take account of the value of the wider countryside and landscape, including opportunities for recreation, including quiet recreation, and as far as practicable maintain access to land. Minimise the	v
15	**Supply:**	
	• identify at the regional level, those minerals which are of national and regional significance and include policies for them in RSS; • aim to source mineral supplies indigenously, to avoid exporting potential environmental damage, whilst recognising the primary role that market conditions play; • before considering the extraction of primary materials, take account of the contribution that substitute or recycled materials,	i

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
	mineral products and marine dredged aggregates would make to the supply of materials; • ensure the best integration of social, environmental and economic costs and benefits is achieved, through applying the principles of sustainable development, by carefully considering how best to maintain an adequate and steady supply of minerals for the economy and society, commensurate with protecting the environment and securing the prudent use of natural resources, and set out policies to achieve this in RSSs and LDDs; • identify sites, preferred areas and/or areas of search, having taken account of environmental considerations, to provide greater certainty of where future sustainable mineral working will take place; • consider the benefits, in terms of reduced environmental disturbance and more efficient use of mineral resources including full recovery of minerals, of extensions to existing mineral workings rather than new sites; • take account of the benefit, including the reduction in carbon emissions, which local supplies of minerals would make in reducing the impact of transporting them over long distances by road; • recognise the important role that small quarries can play in providing historically authentic building materials in the conservation and repair of historic and cultural buildings and structures; • where extraction of more than one mineral from a site is proposed, consideration should be given to any relevant planning guidance specific to each mineral; • provide for the maintenance of landbanks, i.e. appropriate levels of permitted reserves, for non-energy minerals as far as is practicable from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage sites;	ii iii iv v

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
16	**Bulk transportation:**	
	• seek to promote and enable the bulk movement of minerals by rail, sea or inland waterways to reduce the environmental impact of their transportation; • promote facilities at ports and rail links that have good communications inland, so that bulk minerals can be landed by sea and distributed from ports, as far as is practicable, by rail or water; • safeguard and promote rail links to quarries where there is potential to move minerals by rail.	i
		ii
		iii

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
		iv
		v
17	**Environmental protection:**	
	• seek to protect and enhance the character of surrounding rural and urban areas by careful planning and design of any proposals for minerals development; • encourage mineral operators to adopt sound working practices to prevent, where feasible, or if not to minimise, environmental impacts to acceptable levels during the preparation, working and restoration stages, including the provision of improved transportation within and from sites; • encourage mineral operators to incorporate and maintain good environmental management practices into their company procedures and apply them during the operation of their sites; • require mineral operators to seek and maintain effective	i

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
	consultation and liaison with the local community before submitting planning applications and during operation, restoration and aftercare of sites; • state the criteria to be used in assessing mineral proposals and in formulating planning conditions, to ensure that permitted operations do not have unacceptable adverse impacts on the environment or human health. MPAs should avoid unnecessary conditions or obligations that duplicate the effects of other more specific controls, in line with general guidance in PPS1; • ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations caused by mineral extraction are in conformity with national guidance and are controlled, mitigated or removed at source, so as to reduce to an acceptable level any potential adverse impacts on neighbouring land and property; • encourage the establishment of mineral site transport plans in consultation with the local community, dealing with matters including routing, off-site parking, considerate driving and complaints procedures; • consider in association with the Environment Agency, the potential for mineral developments, individually or cumulatively, to affect the flow, quality and quantity of surface and groundwater supplies and the water table, taking account of best available options in preventing leachate generation and water pollution; • ensure, in association with the Environment Agency, that in areas at risk of flooding, mineral extraction proposals do not have a significant adverse impact on flood flows or flood storage capacity. Operators should demonstrate that mineral working should not materially increase the risk of flooding at other properties or locations and, where practicable, should increase flood storage	ii iii iv

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
	capacity; • ensure that proposals for mineral extraction and the storage and tipping of mineral wastes are designed, and appropriate monitoring procedures set up, to ensure that the operation and restoration of the site does not create land instability and help prevent pollution of soil, air, surface water and groundwater; • ensure that proposals for mineral extraction from coastal cliffs, beaches and dune systems do not adversely affect the stability of the coastal environment, increase the rate of coastal erosion or vulnerability to flooding, or affect sensitive habitats, landscapes or Heritage Coasts.	v
18	**Efficient use:**	
	• encourage the efficient use of all minerals and alternatives to them; • encourage high quality materials to be used for appropriate purposes, but taking account of the need to avoid undue delays to site reclamation; • minimise the amount of minerals waste produced in extraction, handling, processing and stockpiling;	i
	• maximise the potential for minerals waste to be used for recycling or in-site restoration, but if not required for these purposes and where practicable, identify a market for its potential use; • ensure, so far as practicable, the use of acceptable substitute or recycled materials in place of primary minerals.	ii

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
		iii
		iv
		v
19	**Restoration:**	

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
	• take account of the opportunities for enhancing the overall quality of the environment and the wider benefits that sites may offer, including nature and geological conservation and increased public accessibility, which may be achieved by sensitive design and appropriate and timely restoration; • consider the opportunities that sites may offer for the development of new woodland areas and for providing networks of habitats; • in order to avoid the possibility of mineral working resulting in dereliction, ensure land is reclaimed at the earliest opportunity and that high quality restoration and aftercare of mineral sites takes place through the provision of guidance on suitable or preferred after-uses and reclamation standards, and the use of conditions and legal agreements, as appropriate; • ensure proposals for restoration and aftercare of sites include details of appropriate phasing of progressive restoration, final landform and landscape and monitoring procedures; • develop a strategy for inactive sites with planning permission for future working, which are considered unlikely to be reactivated in the foreseeable future; • maintain or improve the Public Right of Way network around restored mineral sites as far as practicable; • do not seek or require bonds or other financial guarantees to underpin planning conditions, except as set out in MPG7; • where restoration of mineral workings is through landfill or to a wetland habitat, consult the owner or operator of civil and military aerodromes within 13km, in order to assess the likelihood of increasing the bird strike hazard; • examine the merits of recycling mineral wastes for productive uses or using them for site restoration, in order to minimise the adverse	i ii Iii Iv

PARA	POLICY WORDING	ANSWERS TO QUESTIONS 1i – 1v POSED ON PAGE 1 (where relevant)
	impact that they could otherwise have on the landscape.	V

PLEASE USE THE SPACES BELOW TO ANSWER QUESTIONS 2, 3 AND 4 OF PAGE 1.

PARA	COMMENTS

PART B

PLEASE USE THE TABLE BELOW TO COMMENT ON THE QUESTION IN PART B OF PAGE 1.

PARA	ANSWERS TO QUESTIONS 1i – 1iv POSED ON PAGE 1 (Please indicate the paragraph number and policy considered)

Appendix 7 Summarised partner views from questionnaire responses

INTRODUCTION

In addition to the extensive desk-based study undertaken and in order to seek information from partners, the BGS also ran two one-day focus group workshops, held face-to-face interviews and utilised a questionnaire (Appendix 6).

The first focus group workshop was held at the BGS in Keyworth on 15 February, 2010 and had 19 attendees. The second was held at the DCLG in London on 18 February, 2010 and had 20 attendees. Each workshop was attended by a range of partners from government departments, MPAs, industry, heritage bodies and NGOs.

The workshops focused primarily on obtaining views on the implementation of MPS1 policies, rather than the policies themselves. However, attendees were encouraged to highlight pertinent issues with regard to other MPSs / MPGs and to provide additional information through the questionnaire.

Whilst Chapter 6 of the main report summarises the views expressed by partners via the focus group workshops, questionnaires and interviews, the following appendix describes the views expressed in more detail. Whilst the primary purpose was to obtain views on how existing policy is working, where views were expressed on particular policies these have also been summarised.

MPS1: PLANNING AND MINERALS

MPS1 Policy - Survey

IMPLEMENTATION OF POLICY

Among the respondents it was felt that there is considerable variation in the quality of survey information and the frequency / depth of assessment practice across (MPAs). Whilst there is a large amount of mineral resource information available, its utilisation in the plan-making process was considered to be very variable and its interpretation even more so. Where they knew of its existence planning authorities relied heavily on the maps and information provided by the BGS and others. Mineral operators were then largely relied upon to provide more local specific data, information and intelligence.

While a full interpretation of the policy is that information should be sought on all minerals within a local authority area, respondents felt that this is impracticable and, therefore, effort is concentrated on seeking information on specific minerals to address known pressures. With regard to aggregates, data collected annually as part of the Regional Aggregates Working Party (RAWP) monitoring of sales and reserves is extremely useful as it provides a baseline with which to keep an up to date picture of aggregates supply. However, comparable information is not readily available for many other mineral types. This is particularly so when dealing with old mineral permissions, and for certain mineral types where there is no obligation on operators / owners to provide information to MPAs.

Respondents also felt that there is very limited availability of and success in the gathering of reliable data on waste materials (distribution, production, uses, volumes and availability) which could provide suitable alternatives to primary minerals. This is resulting in a reliance on unreliable data. The best information is only obtained from established processing sites but this

does not address, for example, arisings of construction, demolition and excavation waste (CDEW). As such, this restricts the amount of work that planning authorities can do in this area and useful comparisons with other authorities cannot be made. The monitoring of the availability and use of alternatives was, therefore, considered to be extremely difficult.

BARRIERS TO IMPLEMENTATION

Policy requires that MPAs use the best available information on mineral resources within their areas and consider the social, environmental and economic benefits and constraints of working them. However, several respondents felt that, increasingly, MPAs do not have the expertise to interpret geological data and lack of resources limit the amount of assistance they are able to obtain. This lack of resources was considered to be a hindrance to implementing policy, particularly the enhancement of the evidence base. Whilst the policy is sound, issues surrounding resourcing, limits its implementation and thus effectiveness.

As public bodies, MPAs are subject to the Freedom of Information legislation. Respondents noted that this has led to reluctance by industry to provide data and information as commercial confidentiality cannot be assured. Further, when data is forthcoming from industry, restrictions imposed hinders its use. One example provided is that data is merged to maintain confidentiality but, as a result it often loses its value in the process. To accurately assess the need for future release of mineral reserves it is necessary to have access to reliable and up to date data that has not been merged. It was felt that there needs to be increased dialog between planners and industry if ever the '*..operators' reasonable needs for commercial confidentiality'* are to be relaxed.

For aggregates it was noted that there is a large benefit in the annual surveys where the data collected allows the monitoring of sales and associated re-assessments of reserves. However, consumption data is only collected every four years (through the Aggregate Minerals Survey), resulting in a limited picture of need and, therefore, an imperfect understanding of the balance between demand and supply. Each MPA needs to know how much aggregate is sold and, critically, where it is consumed. One respondent felt that establishing a time series of consumption data would place MPAs in a better position to plan for a balanced supply of mineral.

Respondents also noted that whilst waste data is gathered by the Environment Agency it is not in a format that can be used for planning purposes. With regards to the availability of 'waste' material, most is required for site restoration purposes and conditioned as such. Data regarding the arisings of construction, demolition and excavation waste (CDEW) was also felt to be outdated and considered to be notoriously difficult to collect. Both industry and MPAs would benefit from provision of up to date statistics which would enable a clearer understanding of current resources. Availability of better CDEW data would also contribute to improving the Managed Aggregate Supply System (MASS).

Without stating how it would be undertaken, a respondent felt that, as part of surveying mineral resources, MPAs should also assess the need for minerals, although acknowledging that this might in many cases be a national issue.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

Respondents felt that the direct benefit of the MPS1 - Survey policy, is that levels of allocations (adequate provision) in Development Plans must be justified against a best assessment of the resources and reserves available. Indirect benefits are that it helps planning officers justify their proposals to elected members and provides a solid policy background to something that would otherwise take much longer to arrive at a decision during Independent Examination. Obtaining effective data underpins a robust and credible evidence base for any planning document. As such

regular surveys were considered to be essential for sound planning. It was felt that having reliable survey data also assists in providing the policy justification for taking what are often unpopular decisions.

Respondents noted that as there is a Managed Aggregate Supply System (MASS) in operation through MPS1. The requirement to monitor and manage this system means that regular survey data is at least forthcoming for aggregates. The policy underpins the need to keep accurate and up to date data. It was felt that the RAWPs play a vital role in providing a regional and sub-regional picture of aggregate sales and reserves. Essentially it is the RAWPs that carry out continuing surveys and provide MPAs with the data needed to plan for the future supply of aggregates. Therefore, a benefit of this policy is a successful MASS, essential data to calculate the landbank and evidence to be used when determining planning applications.

One respondent noted that whilst not a benefit resulting from the policy itself, by collecting new data and undertaking analysis of a wide range of pertinent issues, Aggregates Levy Sustainability Fund projects have made important contributions to the evidence base.

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

It was felt among some respondents that a major disbenefit is that confidentiality concerns are preventing industry from assisting with the assembly of a robust and credible evidence base. This is particularly the case in areas where there are a limited number of operators. One respondent highlighted that industry concern over commercial confidentiality is justified by a recent decision by the Information Commissioner's Office (ICO) to instruct an MPA to release confidential data to a third party ‘in the Public Interest’. An appeal against this decision has been made and will be heard in court.

As MPAs are heavily reliant on industry to provide the data they require, requests for the provision of data is leading to survey fatigue amongst the industry. However, if only limited data and information is available to MPAs then at best the result is a limited picture to be presented to the public.

Although there is an important national strategy concerning the use of recycled and alternative materials, respondents felt that the lack of reliable data restricts positive implementation. The poor availability of such data is resulting in speculation on quantities involved and, perceived by some, unrealistic views about the increasing contribution alternatives can make to overall supply. One respondent suggested that some form of statutory collection from suppliers similar to the Annual Minerals Raised Inquiry but extended to waste / alternative inputs would be a step forward. However, such a move may require a change in legislation.

Whilst for some minerals, specifically aggregates, data on sales and reserves is generally forthcoming the lack of data required to create end-use specific reserves e.g. for high specification aggregates was seen as an issue.

A respondent felt that as MPAs are limited in their capability to assemble the required data and information themselves (as a result of not having sufficient finances or staff resources with the appropriate skills) some decisions on matters, such as allocations for specialist minerals or of sites in the right locations to meet demand, cannot be made and provision of a steady and adequate supply is threatened.

RELATIVE POLICY WEIGHT

For those that responded there was a perception of a greater desire amongst local authorities to placate local objection over and above using policy as a justifiable requirement for meeting minerals supply. Whilst legitimate concerns must be addressed it was felt that regional and local planning documents must balance the issues to the benefit of the economy as a whole.

MPS1 Policy - Safeguarding

IMPLEMENTATION OF POLICY

The importance of safeguarding both mineral resources (by delineating Mineral Safeguarding Areas, MSAs) and minerals distribution infrastructure (wharves, rail heads, rail depots etc.) was recognised amongst respondents and, where implemented, the policy can be effective. However, safeguarding in new planning documents was considered to be still at an early stage with most adopted plans having had to adopt pragmatic solutions (usually as a result of safeguarding not having been considered thoroughly enough at the early stages in Core Strategy production). Consequently there are few MSAs yet defined in adopted Core Strategies (with exact boundaries not being defined until a later site Development Plan Document).

It is left to the individual planning authorities to formulate policies aimed at assisting the decision as to whether non-mineral development should be permitted to sterilise mineral resources. Respondents recognised that this has resulted in variable safeguarding policies across those planning authorities that have implemented this policy. It was noted that some planning authorities have adopted methods that do not appear to follow the guidance given in the practice guide on safeguarding (BGS, 2007) and, therefore, the results are ambiguous. It was suggested that there needs to be reference within any revised MPS1 to the BGS Guide to Mineral Safeguarding in England being the appropriate methodology to follow. However, whilst there was a desire for a more uniform approach to the whole issue of safeguarding to ensure parity and transparency it was felt that there still needs to be a capacity to allow for local distinctiveness. The current revision to the BGS safeguarding practice guidance (BGS, in prep.) was welcomed.

Several respondents noted that District Councils often seem to be unaware of safeguarding policy and take no account of it in their planning documents and in decision making on planning applications. It was also felt that there is a lack of implementable conditions on district applications to ensure prior extraction occurs where feasible.

It was also felt that some unitary authorities, particularly in urban areas, are unaware of their responsibilities as MPAs. Therefore, there is the potential for valuable mineral resources to be sterilised by development. Several respondents also felt, with regard to distribution infrastructure, whilst MPAs may make efforts to safeguard, the permitting of unsuitable development in close proximity to existing mineral facilities is often leading to local objection to the running of these facilities. Communication between the different planning tiers needs enhancing.

Prior extraction, whilst recognised as a concept to be promoted, was felt by respondents to be generally little utilised and not often reflected in regional and local planning documents. Prior extraction is generally rejected on the ground that a developer would not accept it. The fact that prior extraction of specific minerals (such as coal) can be viable even on a very small scale (including within urban areas) is not being recognised.

BARRIERS TO IMPLEMENTATION

There was recognition amongst respondents that implementing the safeguarding policies in MPS1 is time, workload and other resource consuming and the level of detail required to justify the identification of Mineral Safeguarding Areas is not always clear. It was widely felt that terminology needs clarification. For example, a key consideration for MPAs is the location of *'proven resources'*. One respondent noted that if '*proven resources'* is taken as a mineral deposit that is both measured and of economic value (as indicated by the JORC code and IMMM reporting Code) it would suggest that the evidence to support inclusion of a Mineral Safeguarding Area should be reasonably detailed in nature. However, would such evidence be in the public domain. The BGS mineral resource maps and data identify mineral resources which

are either indicated or inferred. However, the majority of the available mineral resource information is in the inferred resource category, i.e. those resources that can be defined from available geological information and which may have some economic potential. Does this mean that these areas are not supported by sufficient evidence to justify the delineation of MSAs? The situation is confused further by the apparent divergence between the MPS1 emphasis on *'proven resources'* and the BGS safeguarding guidance (BGS, 2007) which states that inferred resources should be safeguarded. In addition the MPS1 Practice Guide unsatisfactorily explains the safeguarding process[3].

It was also felt that there is a need for any revised MPS1 to state that safeguarding (MSA delineation) applies to all minerals, currently it is not being interpreted as such. Clarity was also sought as to how far into the future planning authorities should be looking and whether it includes deep-mined coal, and oil and gas.

There is a lack of mineral resource information for some specific mineral types. In order to overcome this MPAs are appointing consultants to provide the higher level of information required in order to safeguard mineral resources.

It was noted that lack of carefully defined and clearly delineated MSAs greatly hinders the potential to find appropriate mineral extraction sites to provide an adequate and steady supply. One respondent noted that some plans have identified MSAs which cover land already used for alternative forms of development.

Respondents also felt that a lack of public understanding about the purpose of safeguarding (equating of safeguarding mineral deposits with their 'workability') also needs to be addressed as it is currently hindering implementation. In other words (and in the terms used by MPS1) it is the proven geological resource that should be safeguarded, whether or not planning permission may ultimately be granted is immaterial. Local anxiety about safeguarding should be alleviated by MPAs implementing the policy in full consultation with local communities. However, if there is confusion among the MPAs regarding safeguarding policy and a lack of practical knowledge on how policy should be implemented, how can it be explained to other partners?

Some respondents felt that short term pressures for granting conflicting development are seen as outweighing the long term need to safeguard essential raw materials. There is a lack of emphasis on minerals safeguarding. Until safeguarding mineral resources is given the same weight as protecting other natural resources, it was felt that barriers to implementation will remain. Also there is no flow of policy from national through to regional levels on safeguarding. Further, a uniform approach would strengthen their significance in planning and improve the robustness of local planning documents.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

Respondents recognised that if mineral safeguarding policy is properly understood and implemented it would ensure that mineral resources are protected and are not needlessly sterilised. It would provide partners with a clear understanding of where MSAs exist and would enable them to plan accordingly. Respondents also felt that the required implementation of mineral safeguarding policy has also helped to ensure a wider recognition of the importance of specific minerals. Where mineral safeguarding policies have been implemented they were considered to be beneficial.

[3] JORC and IMMM reporting codes for mineral reserves and resources have been defined for the purposes of raising finance for working a mineral deposit. They require detailed data and their use may not be appropriate for planning purposes.

Whilst already highlighted as not fully meeting people's expectations, respondents felt that work on minerals safeguarding and mineral resource delineation at the national level and through BGS has led to a greater awareness of the distribution of important mineral resources. The identification of these areas has acted as a warning for future non-minerals development and perhaps prevented the unnecessary sterilisation of valuable resources.

One respondent noted that there is an advantage in leaving it to local judgement whether mineral should be sterilised or not.

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

Several respondents noted that the lack of long term safeguarding will cause supply problems in the future as a result of needless sterilisation of mineral resources and the associated distribution infrastructure facilities required. The operation of minerals infrastructure (wharves, rail heads and rail depots) is currently being compromised by permitting unsuitable forms of adjacent land use. The negative perception about safeguarding amongst local communities and elected members also needs to be addressed.

Cost in terms of time, effort and money to undertake the required resource assessment and safeguarding work was seen as a negative impact of safeguarding policy. Respondents felt that it is often hard to decide where to prioritise; environmental issues versus safeguarding, strategic heritage importance versus workability, for example. There was uncertainty in how to rank and weight the objectives in these situations.

One respondent noted that when the industry is consulted with regard to safeguarding there are examples where ownership criteria are being applied, i.e. if an area identified is not supported by a mineral operator it is excluded by the MPA undertaking the safeguarding. A further negative impact from implementing safeguarding policies was felt to be that in some cases, restrictive policies stating that safeguarded minerals must be used locally are being developed when there could be cogent reasons (such as conservation requirements) for non-local use.

RELATIVE POLICY WEIGHT

Notwithstanding the requirement for some of the terms used in the safeguarding policy within MPS1 to be clarified and the need for MSAs to be defined for all minerals, it was felt by respondents that the policy itself is considered sufficient. The main issues are how the policy is implemented and the lack of suitable (or at least non-conflicting) guidance.

Amongst several respondents it was felt that MPS1 safeguarding policy is not given sufficient weight. As MPAs are struggling to define MSAs it perhaps leads them to be given a lower priority. If more weight were given to this issue at regional level it would help ensure MPAs pay due cognisance to safeguarding, better emphasis to two tier authorities the importance of MSAs and also help ensure that prior extraction options are better reflected in both regional and local planning documents. One respondent felt it would be more beneficial if there were a systematic England-wide approach to the identification of MSAs and a greater emphasis on partnership cross-border working.

MPS1 Policy - Protection of Heritage and Countryside

IMPLEMENTATION OF POLICY

For some respondents, MPS1 policies on protection of heritage and countryside are being implemented effectively and appropriately. Whilst other respondents felt that there is an over-adherence to policies that can be interpreted as preventing mineral extraction, and even the interpretation that these policies mean an outright ban on mineral extraction in designated areas.

It was recognised that all of these policies have to be balanced against other competing factors (or policies), as is the case in many planning decisions; these include issues such as need and economic factors.

One respondent noted that mineral extraction and subsequent appropriate restoration can often make a significant contribution to biodiversity. Policies are missing an opportunity to encourage the production of Biodiversity Action Plans (BAPS) for mineral sites. This would allow MPAs to monitor the restoration of sites more effectively and help operating companies design a more locally distinctive restoration plan that is in-keeping with the surrounding landscape and habitats, and help link ecological networks.

Another respondent felt that there is also a need for MPS1 to reflect the wider arguments for effective soil and land management as detailed in the Defra Soil Strategy for England – Safeguarding our Soils (2009). These include land quality, resource protection, food security and climate change considerations; including for example the high environmental value of upland peats.

BARRIERS TO IMPLEMENTATION

For planning authorities there is a problem in judging the weight needed to be given to these factors and the need for development. Whilst one respondent felt that MPS1 is clear on the considerations that form *'exceptional circumstances'* because it allows utilisation of a criteria based approach others felt that further clarification is required. One example, is that whilst MPS1 sets out the range of exceptional circumstances that should be considered, for example in National Parks, other parts of this policy do not contain similar exceptions. Therefore, at face value the general presumption against mineral extraction in Sites of Special Scientific Interest (SSSIs) could be viewed as being more negative than for say National Parks. Thus there is presently some scope for misinterpretation. Respondents also felt that other terms in MPS1 that require clarification are *'major mineral developments'* (with some respondents feeling that this policy was being applied to all mineral development, see below), the *'need for the development'*, *'in the public interest'*, *'national considerations of mineral supply'* and *'high standard of restoration'*. Some respondents (and not all industry affiliated) pointed to the lack of a clear and unambiguous statement on the national need for specific minerals as a contributing negative factor. Problems with interpretation may lead to appeals or decisions being made that either risk the integrity of these protected sites and / or prevent the release of additional mineral. It was also noted that where guidance has been sought from DCLG, the department has declined to provide a view since it might prejudice its position when considering appeals.

Several respondents felt that policies may not be applied in terms which are proportionate to the scale of the impacts that would result from a mineral operation. Minor, intermittent extraction of, for example, building stone are being considered in the same policy terms as major mineral extraction. They felt that smaller sites cannot be treated in the same way in planning terms as larger sites.

It was felt that policy implementation may be reduced because achieving high standards of restoration requires sufficient monitoring by MPAs which are often under-resourced. One respondent noted that this means that some planning proposals and resultant planning conditions are not fully complied with resulting in the original objectives of the planning proposals not being achieved. It was also noted that further problems arise where restoration / aftercare proposals are left as 'reserved matters' for subsequent approval. This step is often overlooked or leads to disagreement as to the required standards of performance / investment etc. Such an approach often leads to the MPA being in a much weaker bargaining position.

Several respondents noted that with regard to MASS, for some areas, there is a conflict between protecting designations and meeting apportionment figures.

Other respondents felt they understand the policy components and they were not aware of any barriers (real or imagined). However, this was a minority view.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

Respondents felt that the direct benefits of this policy are that designated sites are protected. It has also strengthened the safeguarding of European protected sites, and the protection of the historic environment (through reinforcement of the policies in PPG15 and PPG16). This MPS1 policy also helps National Park Authorities implement their obligations under s61 and s62 of the Environment Act 1995, with regard to the statutory purposes of National Parks. The policy also ensures that environmental and cultural assets are properly considered in site allocations and planning decisions. However, it was noted by another respondent that the policy, to some extent, duplicates the Strategic Environmental Assessment requirements for regional and local planning documents and the Environmental Impact Assessment system for individual development proposals.

It was felt by several respondents that this policy, if correctly interpreted, does assist in maintaining mineral supplies from National Parks and Areas of Outstanding Natural Beauty (AONBs). This is because operators have a fixed set of criteria in national policy which they know they must comply with in order to obtain and maintain their licence to operate.

Other respondents noted that the policy also allows for significant benefits not only regarding restoration but ongoing management of mineral estates to be realised. Where the policy is implemented fully it contributes to sustainable development by restoring land to a high standard, thus maintaining the widest number of different possible after-uses for the land in the future. High standards of soils handling, restoration and subsequent management are particularly important where the Best and Most Versatile agricultural land is developed for minerals.

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

The high quality of the landscape in National Parks and AONBs is directly related to the underlying geology, which also hosts some important mineral resources. It was felt, by one respondent, that this is not always recognised when this policy is being interpreted and implemented. It was noted, by another respondent, that significant mineral production comes from National Parks and AONBs. However, these reserves are finite and policies need to be put in place now to plan for their long term replacement from outside designated areas.

There was concern among some respondents about the impact of European Habitat Regulations on mineral planning decisions. It is a major challenge to demonstrate that harm is not occurring to the relevant designation. There is also a failure to recognise that the tests should be different when considering minerals at a policy (plan) level as opposed to the individual site (planning application) level.

Amongst some respondents it was felt that there is a lack of recognition of the co-existence of many mineral sites and environmental or cultural assets. It is not unusual for quarry boundaries to include designations covered in this policy (e.g. SSSIs, especially Regional Important Geological Sites etc.). There is also a lack of recognition within this policy area that mineral extraction may be required as an exception to address public safety issues associated with land instability that has arisen as a consequence of mining legacy. It was noted that substantial areas of mining legacy exist across England and in order to allow these areas to be used for either development or recreation, remediation is sometimes required to ensure public safety. Such remediation often involves the need to extract further mineral. A respondent noted that Minerals Planning Policy Wales recognises that mineral extraction necessary to ensure public safety will be permitted as an exception within areas where mineral working would not normally be acceptable.

Several respondents noted that challenges are likely to exist or arise where specialist or high value mineral resources lie within environmental designations. Both fluorspar and building stone are examples. With regard to fluorspar, England's only significant source lies within the Peak District National Park. In respect of finding building stone for heritage conservation work, the original source of the stone may additionally lie within European designations (Special Protection Area / Special Area of Conservation). Very careful assessment and consideration of proposals to extract small quantities of stone for specific purposes is essential. Once again there were proponents for a clear national policy on the need for certain specialist minerals which would then assist in making balanced decisions on maintaining supplies from designated areas.

Under current procedures / perceptions several respondents felt the policy tends to lose out to environmental / amenity considerations in arguments for and the determination of planning applications. Among different respondents it was felt that land quality, soil protection, food security and climate change are all considerations which should be given due weight alongside other sustainability factors.

RELATIVE POLICY WEIGHT

It was recognised that these policies are needed in regional and local policy documents to underpin their consideration when a planning application is submitted. They are also applied in determining locations and sites within plans. However, it was felt that their full force does not come into effect until a proper impact assessment is made on a specific proposal.

Statutory designations were felt to rightfully be given emphasis within this policy. However, the lack of scope for including regional and local designations where they may be considered as significant as statutory designations was felt by one respondent to be a weakness. They felt that there should be the flexibility within national policy for MPAs to consider MPS1 criteria against local designations. Another respondent felt there should also be some mention of protected species and their importance to the wider ecological network.

Respondents (not all industry affiliated) felt that rarely does industry's good record in operating and restoring sites and the ability, in many cases, to enhance local biodiversity, geodiversity and heritage interpretation receive recognition. Furthermore, insufficient weight is often given to the policy to have regard to the positive effects that mineral operations may have on rural communities. One respondent felt that the final bullet point in paragraph 14 of MPS1 (*'have regard to the positive or negative effects that minerals operations may have on rural communities and the extent to which adverse impacts of such operations could be moderated, but recognise that such developments can often also offer opportunities for these communities especially at the restoration stage')* is normally overlooked following a quest to find reasons why minerals development should not be permitted. Another respondent felt that the interpretation of Green Belt policy in respect of site allocation for associated activities such as recycling can be over prescriptive.

MPS1 Policy - Supply

IMPLEMENTATION OF POLICY

Industry respondents in particular felt that this is the key policy in MPS1 and requires prioritising with a clear, primary statement linked to the MPS1 objective of securing *'adequate and steady supplies of minerals'*. It was felt that there is little recognition of the issue of mineral security of supply and, for energy minerals, its linkage with the importance of energy security. The extraction of indigenous minerals helps to ensure security of supply. Within planning and other respondents there was also recognition of the link between indigenous mineral supply, security of supply and sustainable development.

With regard to aggregates this policy is implemented largely through the Managed Aggregate Supply System (MASS). However, it was highlighted that MASS does not allow consideration of alternatives before extraction of primary mineral at the local level. MASS makes these tradeoffs at national and regional level only. It was felt there is a requirement for clarification on how MPAs should consider the role of alternative materials to primary mineral. There was concern that the *Guidelines* on aggregate apportionment are being inappropriately interpreted in some regions which will jeopardise supply and create supply distortion.

Views on landbanks varied among respondents. Some felt they had a clear understanding of their meaning and incorporation in plans to ensure reserves are released to maintain supply. However, others felt that landbanks are not being maintained even though the impact of this action on other national policies and on adjoining planning authorities has not been properly assessed. One response stated that the definition of landbanks and their role in mineral supply should be reviewed.

BARRIERS TO IMPLEMENTATION

It was felt by respondents, that in certain MPAs the policy is not being correctly interpreted or used as specified in MPS1. For example, the terms, specific *'sites'*, *'preferred areas'* and *'areas of search'* are clearly defined in national policy but are thought to have been misinterpreted and renamed in certain emerging MPA planning documents. Mineral Planning Authorities rarely adopt the convention of identifying specific sites, preferred areas and areas of search and rarely identify sufficient resources to ensure a steady and adequate supply. The dilution and misinterpretation of these terms is leading to greater ambiguity in emerging policy and creating confusion in the industry. A more clear, concise and consistent approach needs to be taken.

The issue of supply is also limited because end-use is determined by industry and market forces. Several respondents felt there is limited ability for MPAs to influence the end-use of minerals (expanded upon under MPS1 Policy - Efficient Use) through either policy or development management. There are no specific national planning policies for certain minerals and as such where policy refers to *'any relevant planning guidance specific to each mineral'* there is room for misinterpretation and difficulties in implementation.

The lack of information and data on the arisings and use of alternative (including recycled) materials potentially hinders the primary and secondary resource balance. One respondent highlighted an emerging credibility gap with public and local politicians that alternative supplies are not being allowed to displace locally won minerals. Other respondents were concerned that the lack of reliable statistics and, perhaps, deliberate over emphasis of the contribution that alternative materials can make, results in false expectations of their role in meeting future demand.

Lack of information and data was also mentioned as contributing to a poor evidence base for the need for natural stone for conservation purposes. The issue of supply of stone required to meet the conservation need of buildings across the country must be balanced against wider policy objectives.

Landbank policy is quite clear. For aggregates it is at the MPA level whereas for silica sand, cement raw materials and brick clay it is at the site specific level. This clear distinction is not always reflected in regional and local planning documents. In addition, over precision with regard to aggregate landbanks (sometimes to decimal place accuracy) was reported as a real cause of concern. The statement *'at least'* is often interpreted as a maximum cap. One respondent noted that mineral operations require large capital investments which need to be supported by adequate reserves to justify the investment.

In respect of coal, a respondent highlighted that the relatively new role for technologies such as Coal Bed Methane meant that companies pursuing these schemes have not yet had chance to

articulate the need for suitable policies and areas of search to be defined in planning documents. It was also felt, by the respondent, that MPAs are continuing to resist site allocations for coal extraction or areas of search for coal despite clear operator interest and objections. The use of areas of search for coal has fallen out of general use over the years and MPAs appear reluctant to reintroduce the concept.

Other respondents felt that there is a need for more awareness of the fundamental importance of minerals to the economy among the general public and decision makers. NIMBY-ism remains the main barrier to minerals development and can lead to poor decision making if high levels of political pressure are exerted on planning committees. Respondents were also concerned that the erosion of the 'primacy of planning' and the increasingly complex web of non-planning consents also required is making it difficult and burdensome for operators to secure new permissions. There was also concern about the increasing role of the Environment Agency in implementing the Mining Waste Directive and Water Legislation.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

The direct benefit of this policy is that it allows for specific planning for more precise levels of minerals supply. Another benefit identified is that implementation of MPS1 supply policy at the local level means increased certainty for the industry, local communities and authorities. The policy is essential to set the framework for balancing the need for minerals against the potential impacts of extraction. It provides the framework which enables MPAs and local communities to understand the means by which essential mineral supplies must be provided.

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

It was felt that the policy gives considerable focus to developing indigenous resources. However, it was recognised that working indigenous resources may ultimately create unacceptable environmental damage.

Once again the absence of specific minerals policies at the regional level leading to a lack of collaborative working at the local level was raised by respondents. There is also a lack of partnership working between county and district authorities. Where preferred areas are identified district councils are not always sufficiently aware of their importance.

There was also mention of the requirement that landbank policy should be strengthened. There should be a greater emphasis on the need to maintain specific landbanks with a clear methodology for calculating them. One respondent mentioned the case of aggregates where MPG6: *Guidelines for Aggregates Provision in England* allowed the use of two different methodologies whereas MPS1 now allows only one. The second method has apparently been used in circumstances where the regional apportionment and local plans are at variance. The respondent felt that consideration should be given to reinstating both methodologies in any revised policy. Reference to landbanks for specific minerals was also mentioned by respondents. Another respondent noted that the MPS1 wording in relation to landbanks implies national policy differences between energy and non-energy minerals which is correct as there are key differences including in relation to the issue of need. However, there was a feeling that MPAs are reluctant to set out separate policy approaches in emerging local planning documents which differentiate between energy and non-energy minerals. The policy refers to maintaining landbanks *'...as far as is practicable from outside National Parks...'*. A respondent felt that this is a compromise, but one which effectively still commits National Parks to maintain landbanks. For clarity, and in order to meet with the policy protecting National Parks from major mineral development, they felt that National Parks should be exempt from maintaining landbanks.

For some respondents, it was felt there is too great an emphasis on aggregates in policy-making, even to the extent that the term *'minerals'* is often taken to mean *'aggregates'*. They suggested

that the role of the RAWPs could be extended to incorporate supply issues for all minerals and specifically for this key section of MPS1. Aggregates representatives, however, felt that as aggregates represent the largest volume of non-energy minerals extracted in England a larger regional body considering all minerals might dilute the importance of aggregates. However, they did feel that policy should recognise the importance the supply of all minerals makes to the economy. This view was reflected by other respondents who highlighted issues of uncertainty surrounding the relative importance of different minerals, and, therefore, the weight that should be attached to them in plan- and decision-making. For example, a lack of clarity within guidance on what constitutes minerals of national importance, particularly for some specialist industrial minerals, allows these policies to be misinterpreted.

RELATIVE POLICY WEIGHT

There was a limited response regarding the amount of weight given to MPS1 Supply policy and to MPS1 overarching objectives which are intrinsically linked to it. The majority of responses concentrated on the overarching principle of the *'need to maintain an adequate and steady supply of minerals for the economy and society'* which they felt should be highlighted as a key supply policy. However, some representatives felt that such a broad statement had to be environmentally qualified in some way.

The policy to enable the minerals industry to secure productivity growth which is central to long-term economic performance etc., is the last bullet point under MPS1 Supply Policy and as such was felt not given enough weight. The amount of prominence given to this issue was also reflected by another respondent who felt that there is a significant absence of policy at the regional and local level with regard to securing high and stable levels of employment within the minerals industry.

Specific reference was also made to energy minerals and in particular coal. It was felt that insufficient weight is being given to the national significance of surface and deep coal resources within both Regional Strategies (RSs) and local planning documents in coalfield areas. There is also little recognition of the new coal-related technologies such as Coal Bed Methane. It was felt that MPAs tend to focus on the merits of extensions to existing sites to avoid the need to consider LDD site allocations for new sites, particularly for coal.

MPS1 Policy - Bulk Transportation

IMPLEMENTATION OF POLICY

The principle behind this policy gained broad support for its importance to sustainable development. However, implementation was considered to be limited, inadequate and even not relevant. Reasons cited for this ranged from the nature and location of mineral operations relative to their markets, which dictated the mode of transport used, the prohibitive costs involved in setting up the infrastructure for rail and the remoteness of sites in relation to the water network. Respondents felt that this policy is only practical for industry to implement where large volumes of mineral are transported long distances to market.

Specific mention was made by one respondent to both 'established use' and The Town and Country Planning (General Permitted Development) Order (GDPO) rights which hinder the safeguarding of wharves and rail depots exclusively for mineral transport. Mineral trade could be displaced for commercial reasons by other products. Therefore, any policies are limited in their effectiveness.

One respondent noted that, whilst not specifically mentioned under the Bulk Transportation policy, wherever possible the transport of minerals should be managed to minimise the impact of vehicle movements on the historic environment.

Respondents also noted that the split in planning responsibilities results in this policy often being overlooked by local planning authorities. Many urban unitary authorities do not exercise their role and responsibilities as MPAs when making decisions regarding infrastructure for the bulk transportation of minerals. There is a recent example, mentioned by several respondents, of the granting of planning permission for housing which would have compromised a number of safeguarded wharves at Greenwich which are important for marine aggregate supplies into London. The development was only prevented by a Judicial Review of the decision.

BARRIERS TO IMPLEMENTATION

The use of more sustainable transport methods was seen by respondents as important but in practice it was questioned how realistic an option it was. Minerals can only be worked where they occur and as such this does not often allow for transport via rail and water. Mention was made of the Aggregate Minerals Survey, 2005 (BGS, 2007) stating that 89.8% of all primary aggregates were transported by road, with only 9.2% by rail and 1% by water as further illustrating the limited use of more sustainable transport methods. It was felt that there is a need to recognise that the use of certain transport methods is only commercially viable for certain types of mineral operations e.g. rail transport is not a viable option for construction sand operations as it is normally only carried over short distances. National policy does not acknowledge this limitation.

In the case of two tier authority areas a lack of coordination between the MPA and the District was also highlighted as a barrier to implementing this policy. Also, alluded to above, it is apparent that unitary authorities which contain distribution infrastructure are failing to safeguard them and are unaware of their role as MPAs. Further, even if wharf facilities are safeguarded, commercial pressures may prevent access for high volume, low value materials such as aggregates, if higher value cargoes can use the same facilities.

It was felt by one respondent that the promotion of facilities at ports and rail links is an issue that should be identified and discussed at the regional level. Strategic ports and rail link locations should be identified in the RS and safeguarded as such. Strategic locations of ports and rail links significant to local minerals operations are not always within local boundaries and, therefore, there is the need for cross-boundary working which should be encouraged at the local level.

Other respondents felt that priority is often just given to other forms of development without due consideration to the impact on minerals transport infrastructure.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

It was highlighted that minerals are the largest material flows in the economy and the need for infrastructure that enables these to be delivered to markets in a sustainable way is a key priority. There are, therefore, very significant benefits to the economy and the environment, as a whole, if suitable transport infrastructure is safeguarded.

Specific reference was made to an MPA with limited land-won sand and gravel resources but access to wharf facilities. Implementation of the policy has relieved pressure on the sand and gravel resources.

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

For those that provided a response, it was felt difficult to know how this policy could be better implemented in light of the restrictions discussed above.

A negative impact of MPS1 Bulk Transportation Policy mentioned by respondents is that many wharves and rail depots are located in congested built up areas with sub-standard road access. Local mineral traffic then becomes an amenity issue.

Ultimately the mode of transport used is based on the availability of existing infrastructure and cost benefit analysis. It is not something that development management at the MPA level can effectively influence.

RELATIVE POLICY WEIGHT

One respondent noted that whilst policies may be in place, effective safeguarding and promotion of transport facilities for minerals is limited.

MPS1 Policy - Environmental Protection

IMPLEMENTATION OF POLICY

Among the respondents it was felt that the Environmental Protection policy has been implemented effectively by MPAs and is working well. The policy is complementary to the MPS1 policy (paragraph 14) on the protection of heritage and countryside. The policy was considered to be standard practice for minerals planning at policy document and application level. MPAs have a long history of applying effective controls on permitted developments through conditions and appropriate planning obligations. MPA level policy documents set out how planning applications for minerals operations should be assessed. One MPA mentioned that they utilise a validation checklist for applicants to adhere to when submitting proposals. This has prevented long delays in the authority getting the information required to make decisions relating to these policies. There was also mention of MPAs operating effective pre-application discussions and also involving statutory consultees in advising on conditions to mitigate any potential adverse impacts at planning application stage. As a result appropriate conditions have been attached to new permissions.

There was also recognition that over recent years many operators have been proactively engaging with local communities. It was also felt that the minerals industry takes environmental protection seriously and translate this into good practice during and after extraction. There are now many excellent examples of restoration to biodiversity-rich after-uses, often deliberately planned, in association with NGOs and other environmental bodies.

However, not all comments were positive. One respondent considered the issue of minerals working in National Parks and AONBs as being one of the most contentious. The trend in thinking is to acknowledge that some minerals should still have a role in designated landscapes but ubiquitous sand gravel should not. They felt this matter needs to be resolved. It should be acknowledged that there can be cases where even sand and gravel working can be justified, because of local supply issues or where extraction might, in the long term, also secure National Park objectives. The respondent felt that the criteria for working in designated landscapes should be reviewed

Another respondent noted that the issue of minerals and European designations / protected species needed clarification. They felt that signposting to PPS9: Biodiversity and Geological Conservation is not altogether helpful. The short term impact of some mineral developments should be recognised as providing opportunities for potentially securing conservation objectives.

BARRIERS TO IMPLEMENTATION

The lack of technically experienced planning officers in MPAs was a cause for concern among several respondents. Minerals applications bring with them a host of detail, all of which require a level of knowledge and understanding of the issues. Lack of knowledge can cause delay and create mistakes. Minerals planning needs to be given a higher priority within planning authorities. A related response noted that practice guidance on these matters can be highly

technical (e.g. on dust and noise). It is important that policy and guidance also caters for a non-technical audience.

Another possible hindrance to implementation of certain policies is that, unlike for waste planning applications, there is no validation checklist for mineral applications. A checklist could work equally successfully if introduced for minerals.

The implementation of MPS1 Environmental Policy in a cost effective manner was felt to be increasingly compromised and confused by the duplication of control through the environmental permitting regime. There are problems with the time it takes for consultation and the planning process to be undertaken. There is a perception, by some, that many local authority planners act as no more than administrators, passing information back and forth from consultees. This leads to excessive consultation time and the drawn out responses hinders the planning process.

Concern was noted that better information on the implications for the historic environment needs to be fed into minerals strategic planning, Strategic Environmental Assessments and Sustainability Appraisals. Unless this is done, the landbank approach to forward planning could increase pressures on the historic environment as the more environmentally acceptable sources of minerals decline over time. Wherever it is practicable, strategic archaeological resource assessments of areas which are, or may be, proposed for extraction should be encouraged and used to enhance local historic environmental records.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

Respondents generally felt that policies are well interpreted in DPDs leading to enhanced and appropriate environmental protection along with effective and significant collaborative working between local authorities and operators. Pre-application discussions provide a platform for working with operators on a 'project team' basis. Subsequently conditions are both satisfactory for keeping workings within the limits set by the environment and feasible for the operators to meet. Many biodiversity and geological features have been safeguarded and extensive areas of good quality habitat have been restored following mineral extraction.

Respondents also felt the policies give a clear and consistent basis for MPAs to formulate local policies on environmental protection in their planning documents and provide a clear framework for the release of minerals. In turn this makes it clear to operators what standards they will be expected to achieve to obtain and maintain their planning permission.

There have also been improvements to standards for environmental monitoring

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

One respondent was concerned that pressure to restore mineral working to agriculture or amenity uses means that significant opportunities for biodiversity creation are being missed.

The involvement of the Environment Agency was also mentioned as resulting in duplication of some controls, uncertainty and additional and unnecessary cost to operators.

RELATIVE POLICY WEIGHT

Some respondents felt there is a lack of balance when implementing the policies in MPS1, with notably those involving environmental protection receiving the most weight.

It was also suggested that production of 'model' policies for environmental protection could be used to speed up the process of plan preparation. It was felt also that there should be greater emphasis on the potential to make better places for people and biodiversity after minerals working, rather than focusing disproportionately on the negative impacts of extraction. For

example, working sites of low biodiversity value and low agricultural value adjacent to areas of high biodiversity value can help create a network of habitats for wildlife.

MPS1 Policy - Efficient Use

IMPLEMENTATION OF POLICY

This policy was considered to be sensible and should be supported. However, large parts of the policy fall outside the planning agenda or are not covered by minerals planning. Respondents felt that issues such as the efficient use of minerals and encouraging recycling are only delivered to a degree by mineral permissions. As such this policy requires reassessment. Much of the efficient-use agenda was seen as being aligned to mainstream development and there was a feeling this should be stated in national minerals policy with reference to district council planning in dealing with built development. Unfortunately it was felt that these authorities do not have the capacity to address these issues e.g. use of recycled materials in place of primary minerals. A respondent noted that the best way this can be addressed is through the Code for Sustainable Homes which can more readily be taken into account by planning authorities.

Mineral operators supply products to meet market demands. Specifiers are best placed to encourage what materials are used for appropriate purposes. Industry respondents felt it was in their own best interests to ensure that their products are produced as efficiently as possible. Consequently, it was felt that commercial considerations largely result in the objectives of these policies being achieved.

One further point raised is that operators do not produce 'waste' needlessly; indeed much so-called waste is essential for restoration.

BARRIERS TO IMPLEMENTATION

As has already been mentioned in relation to MPS1 Survey Policy (see above), the lack of data relating to the availability of substitute or recycled materials was considered by many respondents to be a barrier to the implementation of this national policy. Without sound data it is difficult to assess the potential contribution that alternatives to primary minerals can make. In addition, appropriate uses are not defined within national policy and this makes it difficult to ensure the *'efficient use'* of certain industrial and high specification minerals. Information on the use of acceptable alternatives is scarce. The lack of appropriate skills amongst planning authorities to determine if materials are being used efficiently was also mentioned as a barrier to implementation. Also mentioned was the issue of end-use being market driven and as such development management officers may have difficulty in securing agreements with operators as to the destination of minerals extracted. There is a reluctance to apply, and try and enforce, end-use controls on the consumption of minerals. As such whilst the policy has considerable merit, unless there are conditions / obligations in place to ensure that high quality minerals are used for high quality end-uses the policy carries limited weight. One respondent noted that end-use controls could potentially be counter-productive by inhibiting the best use of a total resource by restricting the sale of out of specification material.

The various initiatives by the Environment Agency were also mentioned as they increase the regulation of minerals waste making it more difficult and costly to optimise the restoration of sites using waste materials. This is expanded upon in the section discussing MPS1 restoration policy.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

It was felt that a benefit of the policy is that it provides a clear and consistent basis for planning authorities to formulate policies on efficient use of materials in their local planning documents. In turn this makes it clear to operators what standards they will be expected to achieve to obtain and maintain their planning permissions.

It was also felt that this policy has raised the profile of minerals and their uses. Efficient use is also being included within ALSF grants eligibility criteria.

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

Several respondents noted that this policy cannot currently, be effectively implemented through minerals planning.

Other respondents were concerned that the *'efficient use'* of minerals has meant a reduction in material available for in-filling of quarries, and subsequent habitat creation. One respondent felt that this has reduced the capacity to meet restoration objectives and local Biodiversity Action Plan targets. More careful thought should be given to how minerals and appropriate 'waste' generally can be used to fill spent quarries and hence contribute to biodiversity objectives.

RELATIVE POLICY WEIGHT

No response.

MPS1 Policy - Restoration

IMPLEMENTATION OF POLICY

A good suite of necessary policy, the implementation of which was seen as a standard requirement by all respondents and was also seen as being effectively implemented. At the MPA level, policies are set out for restoration schemes. It was noted that implementation is generally achieved through pre-application consultations, consulting appropriate consultees at the planning application stage and liaison with ecology / landscape officers over schemes and conditions attached to planning consents.

There was a wide acknowledgement of the excellent and efficient restoration of mineral sites. However, whether this is the result of implementation of MPS1 Restoration Policy or more a reflection of industry-focussed efforts is debateable with respondents mentioning both. Operators are increasingly putting forward proposals for biodiversity gains achieved through restoration to different habitats. However, whilst in some areas aftercare is taking place, helped by the ability of MPAs to charge for monitoring visits, in some areas one respondent felt that little or no agricultural aftercare has taken place for a number of years. It should also be recognised that, unlike income generating after-uses, such as agriculture or forestry, the success of reclamation schemes based on landscape, recreation and nature conservation enhancement often depends on a well-funded and effective scheme of aftercare being implemented, together with provision for the longer-term management of the land. Therefore, in the case of non-profit generating after-uses, one respondent recommended that applicants should also be required to provide management proposals to demonstrate how such schemes will be sustainable in the longer-term (i.e. both during, and beyond the aftercare period). With regard to management proposals, however, operators do have some concerns, specifically that they are being required to provide management plans over 50 years. It is felt that such lengthy management plans are inappropriate (or at least disproportionate) as no other form of development has such onerous requirements.

Whilst there was wide support for the Restoration Policy within MPS1 several respondents felt that current policy specific to restoration (MPG7) needs to be updated in order to better reflect more modern options. At the time that MPG7 was published (1996) the focus was more on

restoration to agriculture, but now the focus is on biodiversity. Use of sites for built after-uses is not really covered nor are issues surrounding landfill and associated bird strike. There is now a need to recognise in policy, landscape, biodiversity, access, the historic environment, geodiversity, recreation, built or integrated after-use, in addition to agriculture.

The effective implementation of restoration through policy was felt to be undermined to an extent by conditions on old permissions that are difficult to enforce, or require the MPA to devise a restoration scheme, at its expense, to attach to an enforcement notice. Respondents noted this can be time consuming and costly, and it is very difficult to meet the precision tests required for successful enforcement purposes.

With regard to coal, The Coal Authority is keen to ensure that future legacy from mineral extraction is not created. Historic mining legacy with poor and ineffective restoration has created a substantial drain on public funds as well as substantial risks to public safety. As a consequence The Coal Authority is keen to ensure that restoration should be carried out to the best industry standards to ensure no future ground stability issues arise. The current national policy framework does not make reference to restoration being undertaken to the best possible industry standards unless, of course, this is what *'high standard'* of restoration mentioned under the Protection of Heritage and Countryside Policy means. This is considered to be an omission from MPS1.

A respondent felt that the policy criteria not to *'seek or require bonds or other financial guarantees to underpin planning conditions...'* fails to recognise problems that have arisen in a significant number of restoration schemes, and contradicts the policy in MPG3 namely that; *'financial guarantees'* (whether by membership of an established industry guarantee scheme, or by the provision of some other financial guarantee prior to the commencement of development), *'are a legitimate and appropriate means of reassuring the local community of operators' commitment and ability to restore sites properly and timeously'*. The MPG3 criteria is sound and better reflects the fact that there have indeed been many instances in the north of England where sites have been left un-restored or aftercare abandoned due to financial failure or lack of cooperation by the developer. There have also been actual or potential difficulties where site operators have transferred responsibility for reclamation of their sites to the previous or new landowners, who are reluctant to adhere to the aftercare requirements and would not be covered by any industry guarantee scheme.

It was also felt that national policy, MPA and industry efforts all help to ensure high-quality restoration occurs. However, it was felt that whilst the industry has achieved high standards of restoration in many cases, there is a lack of recognition by planning authorities and the wider general public of this success.

BARRIERS TO IMPLEMENTATION

The positive contribution restoration schemes have made to the improvement of local amenity is felt, by some respondents, to be underplayed. There should be more emphasis of this contribution at all levels of planning. Regional policy on restoration was considered to be scarce, although it had been included within RSs. The potential to incorporate broad approaches to partnership working and standards for restoration is underutilised.

General obstacles to the effective implementation of restoration and reclamation policies were lack of resources, lack of technical / legislative awareness, commercial pressures and misinterpretation of guidance, along with the low priority given to aftercare by some MPAs. The role of the landowner in the decision on end-use of the site was also highlighted, as this can often limit what the MPA and operating company can deliver. Operators offer to restore sites with schemes that include nature and geological conservation and access at the application stage, but when it comes to the restoration stage, the offer is retracted, as the landowner is reluctant to see an after-use that returns limited monetary value or has potential safety liabilities. It was felt there

is a need to reconcile the concerns and aspirations of the landowner and a need for flexibility when certain after-uses are tied to the working of the site. As mentioned above, historic consents with poorly worded restoration conditions was also included as a barrier, as was the problem of enforcing such conditions.

A respondent felt that the lack of an appropriate national policy reference to historic environment interests is also a barrier to restoration options. As is the need to overcome public concern about loss of landscape.

It was noted that regulations that have come into force since the implementation of the Restoration Policy in MPS1 will affect this policy. Specifically the Mining Waste Regulations are considered a threat to good restoration planning by treating certain materials saved (stockpiled) for restoration as 'waste'. Regulation by the Environment Agency is severely limiting the amount of inert material available for site restoration, thus, limiting the options for after-use.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

A respondent considered that MPS1 Restoration Policy provides a clear and consistent basis for planning authorities to formulate local policies on restoration in their DPDs. In turn this makes it clear to operators what standards they will be expected to achieve to obtain and maintain their planning permissions. The policy criteria provide greater attention on the fundamental importance of good restoration. There are some excellent examples of restoration where people (operators, NGOs and planning authorities) have worked together. Flexibility and collaboration should be recognised and encouraged.

Restoration schemes create opportunities to meet biodiversity and nature conservation objectives. Such environmental issues should be considered an opportunity rather than a constraint. Restoration schemes are being completed to an extremely high standard which allow the beneficial after-use of mineral sites. Restoration policy along with effective collaboration between MPAs and site operators has contributed to improved restoration schemes and enhanced biodiversity.

A comment by a respondent made in relation to coal but which is equally applicable to all mineral development was that it is important at the planning application stage to ensure that reclamation proposals are technically achievable, properly funded and sustainable in the longer term (and reviewed as appropriate as the development progresses).

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

There is often a lack of fill material to restore land back to optimal objectives, partly caused by the use of material as recycled aggregate. However, respondents noted that there have also been examples where Environment Agency policy has pre-empted planned restoration by not allowing inert waste to be used in water bodies. Increasing biodiversity by restoring quarries to different habitats was noted, by one respondent, as potentially resulting in soil resources from the site being 'surplus', as they are not required for the restoration. This can result in unsustainable uses for the 'surplus' soils, for example being used as bulk fill. Other respondents felt there were still examples of less variation / diversity in restoration design and after-use than considered optimum.

RELATIVE POLICY WEIGHT

Respondents felt that the policy is more appropriately given weight at local policy and planning application level. One respondent felt that a weakness of MPS1 is that it gives no emphasis to incorporating restoration objectives, especially for short / medium life mineral sites, into the

overarching vision of place. It was also felt by another respondent that policies need to be modernised, together with the development of a new practice guidance which seeks to reconcile all competing environmental, historical and amenity interests Aftercare was considered to be important for achieving sustainable development. It ensures that appropriate remedial works are undertaken and that the management of the land facilitates its rehabilitation, leading to the achievement of the objectives that formed part of the planning permission.

MPG3: COAL MINING AND COLLIERY SPOIL DISPOSAL

In addition to MPS1 respondents had the opportunity to provide comment on their experiences of MPG3 and in particular paragraph 8 which states that '*...in applying the principles of sustainable development to coal extraction, whether open-cast or deep-mine, and to colliery spoil disposal, the Government believes there should normally be a presumption against development unless the proposal would meet the following tests:*

1. *Is the proposal environmentally acceptable, or can it be made so by planning conditions or obligations?*
2. *If not, does it provide local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission?*
3. *In National Parks and Areas of Outstanding Beauty (AONBs), proposals must also meet the additional tests set out in paragraphs 28 and 29 below.*
4. *Proposals within or likely to affect Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs) must meet the additional tests set out in paragraphs 30 and 31.*
5. *Proposals within the Green Belt must meet the additional test in paragraph 36…'*

The following presents a summary of their contribution.

IMPLEMENTATION OF POLICY

It was recognised by respondents that the presumption against development for coal does not apply to other forms of mineral extraction. It was felt that national minerals policy is not being effectively implemented by MPAs. This was evidenced by the fact that in England nearly all surface coal extraction proposals that gain consent do so on appeal. A respondent felt that Inspectors, therefore, appear to be interpreting national policy correctly and in most circumstances have a different interpretation of national coal policy to MPAs. It was felt that the presumption against coal development set out in the first sentence of paragraph 8 results in MPAs pre-judging an application and finding reasons for refusal. In Scotland, most surface coal applications appear to be granted by MPAs.

The respondent also noted that the national role for coal, together with issues of future energy supply and energy security are not addressed in paragraph 8 of MPG3. Unlike in MPS1 there is no recognition to ensure adequate and continuous indigenous supply or to take account of economic considerations. It was felt that these issues should be addressed in relation to coal as well as other minerals. MPG3 requires these considerations to be incorporated alongside other policy for coal (see MPG3 paragraph 11) to be included within development plans. However, MPAs are unwilling to do so. Few will in fact look at splitting policies along the lines of energy minerals and non-energy minerals.

As evidenced by the Shotton OCCS, 2007 appeal permission in Northumberland the respondent felt the view taken by MPAs in the North East is that the Government has effectively abandoned the MPG3, paragraph 8 interpreted presumption against opencast coal development in the open countryside. This apparent (but unconfirmed) shift in policy has also resulted in a significant

number of industry-proposed OCC Sites now being put forward for the County's emerging Local Development Framework.

A respondent noted that paragraph 8 of MPG3 has had a detrimental impact since it was introduced. The development of coal technologies and energy policy, together with the new development management approach to planning, means it is now time it was reviewed and a more balanced policy adopted.

BARRIERS TO IMPLEMENTATION

The final sentence of MPG3 paragraph 8 states *'MPAs assessments of the environmental acceptability or otherwise of individual proposals should normally prevail'*. A respondent felt that this is a major barrier to the effective implementation of national policy. It focuses only on the first test in paragraph 8 and implies that the second test of community benefits may be, by inference, of lesser value. The respondent considered it to be a highly unusual statement. All national planning policy is for the appropriate decision maker to weigh up, taking account of all material planning considerations. The current statement can result in MPAs feeling they can take a negative view on coal extraction policies because MPG3 states it is purely for the MPA to decide environmental acceptability or not. The respondent felt this statement is unnecessary as almost all proposals will be subject to Environmental Impact Assessment provisions; it is, therefore, the role of the Environmental Statement to demonstrate environmental acceptability.

MPG3 refers to old terminology *'opencasting'* which is a particular form of extraction. The modern terminology is 'surface mining' which includes all the various methods of extraction. A respondent noted that any revised policy for coal should utilise modern terminology.

One respondent noted that MPG3 paragraph 7 does not provide a balanced view. It was felt it fails to recognise that many forms of surface coal extraction are short term activities, lasting only months or a few of years before restoration proceeds. In contrast, many other forms of mineral extraction, for example hard rock quarries, last for decades.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

A respondent highlighted an example where coal extraction proposals have been made environmentally acceptable (MPG3 paragraph 8, test (i)), yielding valuable community benefits (MPG3 paragraph 8, test (ii)) through enhancements to the historic environment secured by Section 106 obligations tied to the planning permission. Planning permission was recently granted to UK Coal for surface mining at Codnor, Derbyshire with a S106 for c.£1.5M worth of repairs to three important heritage assets, including Codnor Castle scheduled monument. It is believed that this project represents one of the most significant private sector investments in a scheduled monument at risk that has been secured through the planning process. There are occasions where alternative sources of funding for 'good works' may be very difficult to secure. Utilisation of MPG3 paragraph 8 is one way of funding such schemes. The respondent felt these examples provide the minerals industry with excellent opportunities to engage in community outreach.

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

Of concern to respondents is the presumption against development set out in MPG3 paragraph 8. They felt it results in a starting point where MPAs need to be proved that development is acceptable. A respondent noted that it is normal practice to write policies in a positive manner; indeed Government Offices have objected to development plan policies on this basis for many years. They felt the same criteria can still apply but the presumption against development could be removed without fundamentally changing the application of national policy. It could be written in a positive manner. For example, *'the Government believes that proposals should be*

permitted where it would meet the following tests...' This would change the initial interpretation from a negative to a neutral starting point. This sort of approach would be more in line with the rest of national planning policy on minerals.

Among the respondents a tendency among MPAs to 'gold-plate' the MPG3 paragraph 8 tests when implementing them in both local planning document policies and development management decision making was a concern. In particular, MPAs seek to require proposals to meet both the environmentally acceptability test and the community benefit test, whereas respondents felt national policy is clear that these tests are supposed to be applied sequentially and separately, with the community benefit test only being necessary to be considered if the first environmental acceptability test is not met. Whilst the policy is clear it requires careful reading to ensure clear understanding. Therefore, respondents felt it could perhaps benefit from minor editing or re-formatting to add clarity, perhaps with tests three to five being separated out as these are only relevant to specific locations.

One respondent noted that whilst MPS1 contains overarching policies applicable to all minerals there is a suggestion, that because coal has MPG3, then MPS1 does not apply to coal. This is a fundamental misinterpretation of MPS1.

RELATIVE POLICY WEIGHT

A respondent felt there appears to be a lack of recognition that community benefits can relate both to the 'local' and 'wider' community. 'Community benefit' is not defined but often is considered to be the immediate village. However, the wider community should also be considered and the benefits include employment, the provision of necessary and essential energy supplies, remediation of land affected by former mining legacy or tackling public safety risks, and the re-working of previous coal tips etc. which could lead to environmental enhancements.

It was felt that consideration should be given to ensuring parity for the historic environment with nature conservation and landscape interests within the MPG3, paragraph 8. This would strengthen the reference to the historic environment in MPG3, paragraph 33. The current arrangement is not a barrier or hindrance to implementation but parity would enhance the effectiveness of this part of MPG3 implementation.

MPG15: PROVISION OF SILICA SAND IN ENGLAND

Specific reference to silica sand was made by some respondents during the focus group workshops and in the questionnaire. Where specifically relevant to MPG15 they have been summarised below.

MPG15 was generally viewed as a positive and understandable policy document. Whilst the economic data contained is dated, the regular review of the BGS *Mineral Planning Factsheet* on Silica Sand was highlighted as providing a comprehensive update of this information. The policy element of MPG15 was considered to be still relevant today and it could generally be cited as a policy document which remains fit for purpose. However, a respondent noted that when MPG15 was written, the then Department of the Environment (DoE) was responsible for minerals provision and the Department for Trade and Industry (DTI) led on the economic contribution made by the industry. Since then, DCLG, the Department for Business, Innovation and Skills (BIS), the Department for Environment, Food and Rural Affairs (Defra) and the Department of Energy and Climate Change (DECC) all now have responsibilities which potentially impact on minerals supply. Policy implementation has, therefore, become fragmented, particularly in relation to nationally important minerals such as silica sand, giving the impression of conflicting department priorities.

IMPLEMENTATION OF POLICY

Respondents recognised MPAs do acknowledge the need for an adequate and steady supply of silica sand. MPAs make provision in their planning documents for an adequate and steady supply of mineral in the plan period and silica sand producing MPAs acknowledge the landbank policy in MPG15. The interpretation of landbank provision was, however, considered to be variable and fails to fully recognise the landbank requirements stated in MPG15. A respondent was concerned that the Regional Planning Bodies have limited understanding and often failed to recognise the difference between landbank requirements for aggregates and those for silica sand as given in MPG15.

It is stated in MPG15 that it is *'…important that silica sand resources should be used as efficiently as possible...'* As silica sand is a naturally occurring mineral, deposits are often of variable quality. In view of the significant investment required by operators, a respondent noted that it is in their interest to add value to the deposit through beneficiation. However, if the mineral does not meet an industrial specification, they felt it important that the material could be sold as a lower grade product. It was considered, therefore, that implementation of end-use controls would be inappropriate.

BARRIERS TO IMPLEMENTATION

Silica sand is a scarce resource located in specific areas of the country. It was felt by respondents that the MPAs in these areas need to recognise this when considering the landbank for silica sand. It was noted that MPAs should aim to ensure that landbanks of at least 10 years supply are maintained at individual sites. Furthermore, for significant new capital investment by the industry in existing or new sites, it may be necessary to provide for a stock of permitted reserves of at least 15 years, or substantially longer than this, for greenfield sites, depending on the circumstances.

With regard to silica sand provision in development plans, respondents felt that certain planning authorities were hindering the process through the incorrect use of terms set out in national policy. For example, the terms *'specific sites'*, *'areas of search'* and *'preferred areas'* are often altered or misinterpreted leading to ambiguity in emerging policy at a regional and local level.

BENEFITS ARISING FROM POLICY IMPLEMENTATION

It was felt that the majority of silica sand producing MPAs seek to comply with the need to ensure an adequate and steady supply of mineral. Respondents felt the benefit of MPG15 (policy on silica sand provision in Development Plans) is that it provides a clear, concise definition of the terminology to be used in emerging regional and local policy that makes it easy for both industry and authorities to follow.

NEGATIVE IMPACTS AND CONSEQUENCES ARISING FROM IMPLEMENTATION

Respondents were concerned that the differing interpretation of terms within MPG15 (*'specific sites'* etc.) is leading to ambiguity regarding silica sand provision.

It was felt that the majority of silica producing MPAs seek to comply with the need to ensure an adequate and steady supply, but often provide their own interpretation of the landbank provision. National policy requires MPAs to make an appropriate contribution to national requirements. In addition, the landbank requirements in MPG15 are 'site specific' a fact some authorities, a respondent felt, have sought to disregard.