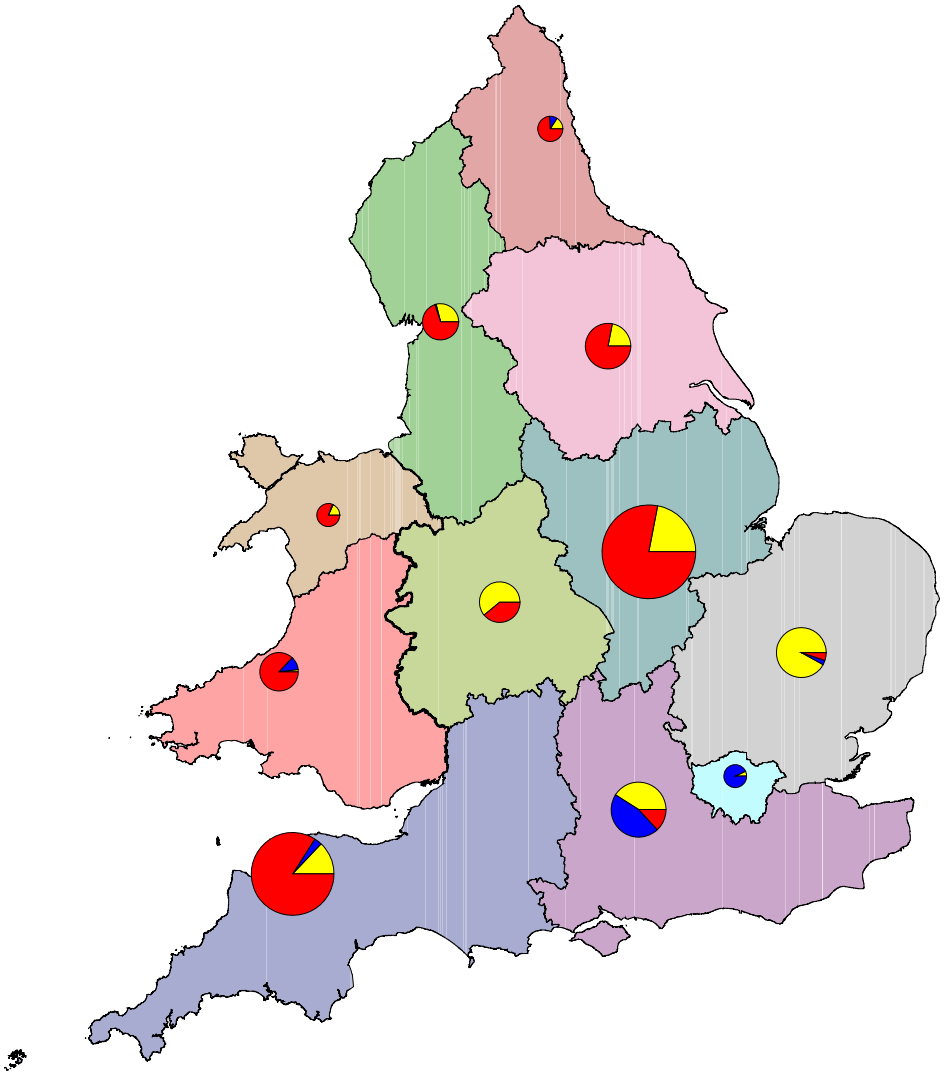
British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Department for Communities and Local Government

Llywodraeth Cymru
Welsh Government

Collation of the results of the 2014 Aggregate Minerals survey for England and Wales



British Geological Survey

Commissioned Report OR/16/005

Collation of the results of the 2014 Aggregate Minerals survey for England and Wales

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Editor

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Report prepared by the British Geological Survey

for the Department for Communities and Local Government and Welsh Government

Keyworth, Nottingham: British Geological Survey, March 2016

Bibliographical reference
Mankelow J M, Bide T P, Sen M A, Raycraft E and Cameron D G. 2016.
Collation of the results of the 2014 Aggregate Minerals Survey for England and
Wales. *British Geological Survey Commissioned Report*, OR/16/005. 160pp.

ISBN: 978-1-4098-4875-2

This report has been produced by the British Geological Survey under a contract with the Department for Communities and Local Government. Any views expressed in this report are not necessarily those of the Department for Communities and Local Government.

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COLLATION OF THE AM2014 SURVEY

1. INTRODUCTION

1.1 Aggregate Minerals (AM) surveys, normally undertaken at four-yearly intervals since 1973, provide an in-depth and up-to-date understanding of national and sub-national sales, inter-regional flows, transportation, consumption and permitted reserves of primary aggregates. The surveys are used to inform the development of minerals policy in respect to the production, movement and consumption of aggregates. The data are made publicly available.

1.2 This report is the collation of the data for primary aggregates for 2014, therefore there has been a five year period between this and the previous survey (AM2009). In addition to presenting information on regional and national sales, consumption, and permitted reserves of primary aggregates, the AM2014 report also presents data on the movement and consumption of primary aggregates by sub-region. Information is also presented on the quantity of aggregate minerals granted and refused planning permission and planning permission applications withdrawn between 2010 and 2014. In addition, information is presented on the quantity of aggregate minerals within planning permission applications submitted between 2010 and 2014 and were awaiting a decision at 31 December 2014.

1.3 The information is presented for England and Wales and for individual regions and was collected from aggregate producers by Mineral Planning Authorities (MPAs) using a standard form (Appendix F). It was subsequently collated at regional level by the relevant Aggregate Working Party Secretary (Appendix I) or the British Geological Survey (BGS)[1] and at national level by the BGS on behalf of the Department for Communities and Local Government (DCLG) and the Welsh Government. Similar information was published by the then Department of the Environment for 1973, 1977, 1985, 1989 and 1993, the Department of the Environment, Transport and the Regions for 1997, the Office of the Deputy Prime Minister for 2001 and the Department for Communities and Local Government and the Welsh Assembly Government for 2005 and 2009 (Appendix H). Comparisons of sales, consumption and permitted reserves for these years and 2014 are provided in Tables D1 to D3.

1.4 The BGS was commissioned in March 2015 by DCLG to design and implement the AM2014 survey and to collate, interpret and report the results. The study was overseen by a Steering Group, which included representatives of DCLG, the Welsh Government, AWPs, the Planning Officers' Society and the aggregates industry (Appendix J).

POLICY BACKGROUND

1.5 The key Government objectives and planning policies on minerals in England are set out in the National Planning Policy Framework (2012). *Mineral Planning Policy Wales* (2000) set out the land-use planning policy guidance of the Welsh Government in relation to minerals extraction and development in Wales at the time of the survey. Including all minerals except marine aggregates, it has since been replaced by *Planning policy Wales, chapter 14, Minerals (2016).* Minerals Technical Advice Note 1: *Aggregates* (2004) sets out detailed advice on the mechanisms for delivering policy for land-based aggregates extraction in Wales by MPAs and the aggregates industry.

1.6 The results of the AM2014 Survey will be used:

- to monitor and develop planning policies for the managed supply of aggregates in both England and Wales;
- to inform all stakeholders of the current state of aggregates supply; and
- as a source of contextual data with respect to planning applications for the extraction of aggregates.

AM2014 SURVEY

1.7 The AM2014 results were collected using two standard inquiry forms (Forms A and B) (Appendix F). Form A relates to sales by end use, sales by destination (sub-region) and transport method, and permitted reserves of primary aggregates. This form was forwarded to the following sites by MPAs in England and Wales for completion and return by operators/owners:

- all active quarries producing land-won primary aggregates at some time during 2014, either as a principal activity or as a subsidiary activity, such as a by-product of building stone or ancillary to silica sand extraction;
- inactive sites, either worked in the past or yet to be worked (greenfield), that contain permitted reserves of aggregates;

[1] The AM2014 survey ran during a period of transition of AWP Secretaries in England. As a result, the BGS undertook regional collations for the East Midlands, West Midlands, South East and London.

- marine wharves at which marine-dredged sand and gravel was landed and processed in 2014; and
- marine wharves at which crushed rock from outside England and Wales was landed in 2014.

1.8 There are 162 authorities in England and 25 in Wales designated as MPAs. However, a number of unitary authorities (London boroughs, metropolitan districts and a few rural authorities) are either totally urban or have no mineral workings for aggregates. Excluding MPAs with no aggregate mineral workings, data were collected for 114 of the remaining authorities. Therefore, all MPAs where aggregates are extracted or landed participated in the survey

1.9 Both the Mineral Products Association and the British Aggregates Association supported the survey. The rate of return of Form A was very high for this voluntary survey and for active and inactive sites was over 90% in all Aggregate Working Party regions. Where figures were not forthcoming, and where feasible, estimates may have been made by the MPAs or AWP Secretaries. The proportion of estimates made by the MPAs or AWP Secretaries was very low representing 2.8% of total sales, 4.3% of total reserves and 5.9% of destination data (used to calculate consumption) respectively. The survey results present data for **836** quarries, of which **170** were inactive worked in the past and a further **43** sites which have yet to be worked. Of the 623 active quarries surveyed, 327 were for crushed rock and 296 for land-won sand and gravel. The survey also included 63 wharves at which marine sand and gravel was landed and 25 wharves landing crushed rock. Some wharves landed both sand and gravel and crushed rock. The distribution of the sites surveyed is shown in Maps 4 and 5 and Table 18.

1.10 AM2014 collected for the first time the current planning permission end-date for all active sites. Figures 1, 2 and 3 summarise this information by commodity and country.

1.11 Sales and distribution data relate to 2014 and the permitted reserves were estimated at 31 December 2014. The information is presented by Aggregate Working Party Area (Maps 1 and 2) using the boundaries that were applicable as at 31 December 2014. The MPAs comprising the separate AWP regions of England and Wales are shown on Maps 1 and 2 respectively and are also listed in Appendix L. Comparisons of sales, consumption and

permitted reserves for the regions from 2001 are provided in Tables E1 to E3.

1.12 In all previous AM Surveys, data on the movement of aggregates was collected on the basis of inter-regional flows. For AM2005 the BGS was, additionally, asked to consider the movement of aggregates on a sub-regional basis. The sub-regions (except for London) were based on NUTS2 units, which stand for Nomenclature of Units for Territorial Statistics. The NUTS2 boundaries are consistent with AWP boundaries allowing inter-regional flows to be calculated, as well as more detailed destination information. In order to allow better comparison with the AWP annual monitoring reports, the sub-regions were changed for AM2009 making comparison with the AM2005 survey sub-regional results difficult. AM2014 used the same sub-regions as AM2009 thus allowing comparisons to be made. The sub-regions used for AM2014 are shown on Map 3. The sub-regional survey of sales by destination undertaken for AM2005, AM2009 and AM2014 has enabled a large amount of additional information to be collected, including a more detailed analysis of primary aggregates consumption by sub-region.

1.13 Data are presented on sand and gravel, both land-won and marine dredged, and crushed rock aggregate. The latter includes limestone (including dolomite), igneous rock (including metamorphic rock), sandstone (including gritstone, greywacke and quartzite), chalk and ironstone. Both chalk and ironstone are used in some regions for less demanding aggregate applications. However, they contribute less than 0.5% to total supply. As in conventional practice, landings of marine sand and gravel are assigned to the MPA in which the wharf is located.

1.14 Form B sought information on the numbers of sites granted or refused planning permission and the numbers of planning permission applications withdrawn during the period 2010 to 2014; the numbers of planning applications awaiting a decision at 31 December 2014; and the quantity of mineral contained within these permissions or applications. Form B was completed by individual MPAs and compiled into a database by BGS. This survey provides valuable information on the extent that permitted reserves of primary aggregates are being supplemented by new permissions and, in combination with the sales data, the extent that reserves are being depleted.

1.15 In preparing this report, the commentary and data have been presented in a style that is, as far as possible, consistent with previous surveys and comparisons with earlier surveys are made where appropriate. Whereas every effort has been made to ensure the accuracy of the figures presented, neither the DCLG/Welsh Government, nor the BGS can be held responsible for any errors contained therein.

1.16 Regional collations of the 2014 survey data will also be published in the AWP Annual Reports. These are available from the AWP Secretaries (see Appendix I). These contain more detailed information, generally at MPA (often County) level. In England, data will also be utilised by MPAs in the production of Local Aggregates Assessments.

CONFIDENTIALITY

1.17 Data relating to an individual quarry are normally considered to be confidential. Any figure disclosed must include at least three companies' interests unless all the parties involved have been contacted and their prior approval obtained in writing, permitting the release of the information. For the purposes of the AM2014 survey, Mineral Products Association members, which account for a major proportion of total sales, relaxed these confidentiality restrictions by providing, via the Association, prior permission for publication of figures where this three company rule would normally apply. This has allowed additional data to be disclosed, particularly for environmental designations. Whilst strongly advising all its members to fully cooperate, the British Aggregates Association was unable to relax the three company rule. Neither association was able to compel its member companies to complete the survey. For non-Mineral Products Association members the normal three company rule has been applied.

SURVEY COVERAGE

1.18 The AM2014 collation has mainly been carried out electronically. Forms A and B were prepared in Microsoft Excel and whilst often completed manually, all the data were input electronically so that collation at MPA, AWP and national level was greatly simplified. Customised Microsoft Access databases were designed and created specifically for the survey to assist the MPAs and AWP Secretaries in undertaking their collations. The regionally collated data provided to the BGS were input into an AM2014 Microsoft Access database to undertake the National Collation.

1.19 The AM2014 survey refers to 'sales' of aggregates. The term relates to material leaving a quarry/wharf as measured at a weighbridge. The term 'sales' is more accurate than 'production' as used in some previous surveys

prior to AM97. However, as weighbridge sales were the principle source of statistics on 'production' in previous surveys readers should not draw any statistical inferences from the change in terminology.

1.20 The main constraints on the data continue to be confidentiality considerations and 'unallocated sales' of unknown destination. Total unallocated sales are higher than for AM2009 (Table 2b). This is due to a number of factors, including the more complex requirement for sub-regional flows and also stricter confidentiality rules in carrying out the survey that did not allow unallocated sales to be followed up directly with companies.

1.21 The Office for National Statistics (ONS), through the Annual Minerals Raised Inquiry (AMRI), has collected and published information on extractors' sales of aggregates within Great Britain on behalf of DCLG. Unlike AM surveys, this has been a statutory survey carried out under the Statistics of Trade Act 1947. The results are published in the Business Monitor PA 1007 *Minerals Extraction in Great Britain*. To simplify the AM2014 survey the questions were generally harmonised with those in AMRI.

1.22 The prime purpose of the two surveys is different. AMRI, which also covers minerals other than aggregates, was designed to provide a consistent time series of commodity data for economic/market analysis. The AM survey aims to provide comprehensive data for monitoring and facilitating aggregates provision at local, regional and national level. The output is used mainly by Government (DCLG and the Welsh Government), MPAs, industry and environmental interest groups. Only AMRI collected information on employment and the value of sales and only AM collects data on the destination of sales, consumption, permitted reserves and information for environmentally designated areas.

1.23 A historical comparison of the data presented in both the AMRI and AM surveys indicates that AM surveys show somewhat larger totals for aggregate sales. This is believed to be due to a better coverage of sites and also the ability of MPAs to provide estimates for sites which did not provide a survey return. For 2014 the respective totals for England and Wales were; AMRI 129.7 Mt against 137.0 Mt for AM2014. The 2014 AMRI survey,

published on 8 March[2], is the last to be undertaken. Data on mineral sales at the UK level can still be derived from the annual UK manufacturers' sales of product survey[3].

ACKNOWLEDGEMENTS

1.24 The authors wish to record their thanks to the aggregates industry, the Mineral Products Association and the British Aggregates Association for their co-operation at all stages in the execution of the survey and the collation of its results. Special mention is due to the officers of MPAs for their collation of the data at the local level and the Secretaries of the AWPs for their checking of the provisional survey results. The names and contact addresses for the current AWP Secretaries are given in Appendix I. Particular thanks are also due to Eamon Mythen (AM2014 contract manager) at the Department for Communities and Local Government, and the members of the Steering Group (Appendix J) for their support and guidance.

[2] https://www.gov.uk/government/statistics/mineral-extraction-in-great-britain-2014

[3] https://www.ons.gov.uk/surveys/informationforbusinesses/businesssurveys/ukmanufacturerssalesbyproductprodcom

COMMENTARY

2. NATIONAL OVERVIEW

2.1 Sales, consumption, and inter-regional flows of primary aggregates in England and Wales and by region are summarised in Tables 1 to 8. Tables 9 to 11 provide, respectively, an overview of sales by MPA and sub-region, imports by sub-region and consumption by sub-region. Permitted reserves of aggregates at 31 December 2014 by region and by environmental designation are summarised in Tables 12 and 13. The numbers of sites granted and refused planning permission to supply wholly, or in part, aggregate minerals, and the amount of mineral that these contained are summarised in Tables 14 and 15 whilst those awaiting a decision or whose planning permission application has been withdrawn are summarised in Tables 16 and 17. More detailed information on sales, reserves, and planning permissions/refusals are presented in Appendices A to C, respectively. A comparison of sales, consumption and permitted reserves of primary aggregates with all previous AM surveys is given in Appendix D and, in relation to the modern regions used for all the surveys since AM2001, Appendix E.

SALES

2.2 Total sales of primary aggregates produced in England and Wales, including marine-dredged sand and gravel, but not imports of aggregates from outside England and Wales, were **137.0 Mt** in 2014 of which **90%** was produced in England. **Total sales increased by about 15% between 2009 (119.1 Mt) and 2014 (137.0 Mt),** with marine-dredged sand and gravel showing the largest increase (28%) from **11.0 Mt** in 2009 to **14.0 Mt** in 2014. Sales of land-won sand and gravel increased (8%) from **37.4 Mt** in 2009 to **40.5 Mt** in 2014. Sales of crushed rock increased (17%) from **70.7 Mt** in 2009 to **82.5 Mt** in 2014. In 2014 total sales of primary aggregates were down **133 Mt** on the largest output in previous AM surveys in **1989** when total primary aggregate sales were **269.6 Mt**.

2.3 Primary aggregates sales in England and Wales for 2014, comprised **29.6% land-won and 10.2% marine-dredged sand and gravel, with crushed rock making up the remaining 60.2%**. Limestone/dolomite remained by far the most important source of crushed rock aggregate, accounting for 66% of the total, followed by igneous rock (25%), sandstone (9%), and minor chalk and ironstone (<0.5%). **Marine sand and gravel**

supplied about 25% of total sand and gravel output in England, compared with 49% in Wales.

2.4 National Parks and AONBs cover 23.8% of the land area of England and 23.4% of Wales. **In England and Wales 9.3% and 4.8% of total crushed rock sales were supplied from National Parks and AONBs respectively, and 0.5% and 3.3%, respectively for land-won sand and gravel.**

CONSUMPTION

2.5 The AM surveys are the only comprehensive measurement of apparent consumption of primary aggregates (see glossary - aggregate consumption) by region (and now sub-region). **Total apparent consumption** of primary aggregates was **137.4 Mt** in 2014, of which **127.5 Mt** was used in England and **9.9 Mt** in Wales. Total consumption should be somewhat higher than total sales because it includes imports from outside England and Wales. However, total **unallocated sales** of unknown destination were **2.6 Mt in 2014.** This is mainly due to confidentiality constraints, which prevented back checking. Taking into account unallocated sales, the total consumption of primary aggregates in England and Wales was about **140.1 Mt** in 2014.

NATIONAL FLOWS

2.6 England was a net importer of primary aggregates (4.5 Mt) and Wales a net exporter (4.2 Mt). Total exports from Wales comprised 4.3 Mt of crushed rock and 0.2 Mt of sand and gravel. Imports into Wales were 0.2 Mt of crushed rock and 0.1 Mt sand and gravel. **Some 3.2 Mt (or 2.4% of total aggregates consumption) were imported into England and Wales from Scotland and Europe.** Almost all of this was crushed rock (mainly igneous rock) imported into the South East and London principally from Scotland and Norway, but with small quantities from France and Northern Ireland. Total imports from outside England and Wales were greater than in 2009 (2.5 Mt).

2.7 Total exports of land-won primary aggregates from England and Wales were 0.2 Mt in 2014. About 3.0 Mt of marine sand and gravel dredged from the UK Continental Shelf were landed at foreign ports in 2014 (Source: The Crown Estate). With exports from England and Wales to Scotland and overseas matching corresponding imports, together the countries are no longer a net exporter of aggregates. A further 2.4 Mt of marine sand and gravel were used for contract fill and beach nourishment (Source: The

Crown Estate). Landings of marine sand and gravel at foreign ports and that used for contract fill and beach nourishment are not covered by AM surveys.

RESERVES

2.8 Total permitted reserves for aggregate use in active and inactive sites in England and Wales, including sites worked in the past but still containing reserves (but not dormant sites) and sites that have yet to be opened, at the end of 2014 were **3 906 Mt**. Crushed rock accounted for **88% (3 448 Mt)** and sand and gravel the remaining **12% (457 Mt)**. Of total permitted reserves, 81% were in active sites and 82% in England.

2.9 Sites classified as 'Dormant' under the terms of the Planning & Compensation Act 1991 and the Environment Act 1995 contained **421 Mt**. These tonnages are separately identified in Table 12 but are excluded from the totals. Dormant sites cannot be worked until new schemes of conditions have been determined and, therefore, do not contain 'permitted reserves'. The data presented on dormant sites cannot be considered complete as some regions have dormant sites where the volume of aggregates contained is not known and, therefore, could not be supplied by the MPA.

2.10 Total permitted reserves of sand and gravel for non-aggregate use (mainly silica sand) were 31.6 Mt in 2014. Total permitted reserves of crushed rock for non-aggregate use were 608.5 Mt of which 89% was limestone/dolomite.

3. SALES OF PRIMARY AGGREGATES

3.1 Table 2a summarises sales by region and country of origin, and by the major types of primary aggregate, i.e. land-won/marine sand and gravel and crushed rock. Table A4 summarises sales by mineral type for crushed rock aggregate. Table D1 compares primary aggregate sales for each AM survey since 1973 and, in relation to the modern regions used for the AM2001 survey onwards, Table E1. National and regional sales are also shown on Map 6.

REGIONAL SALES

3.2 The **East Midlands** continued to be by far the largest producing region at **30.4 Mt, equivalent to 25%** of total primary **land-won** aggregate sales in England and Wales. The **South West (24.7 Mt, 20%)** was the second largest source of land-won primary aggregates. Excluding London, North Wales (5.1 Mt) and the North East (5.0 Mt) were the smallest producing regions of land-won primary aggregates.

3.3 Within these totals, the sand and gravel, and crushed rock balance differs significantly. The **East Midlands** accounted for the largest volume of **crushed rock aggregate sales (23.8 Mt, 29%), slightly larger than the South West (21.4 Mt, 26%),** and the **South East** for the highest proportion of **sand and gravel (including marine-dredged) sales (12.5 Mt, 23%),** only slightly higher than the East of England (11.9 Mt, 22%). Marine-dredged sand and gravel as a proportion of regional sand and gravel sales was however 53% (6.6 Mt) in the South East compared with 3% (0.4 Mt) in the East of England.

3.4 Greater London **(0.4 Mt),** the North East **(0.9 Mt)**, North Wales **(0.9 Mt)** and South Wales **(0.2 Mt)** produced the smallest amounts of land-won sand and gravel. Conversely, East of England **(0.6 Mt)** and the South East **(1.8 Mt)** were the smallest crushed rock producers. There is no crushed rock production in London. The balance between sand and gravel, and crushed rock production largely reflects the underlying geology and hence the aggregate resources within these areas. Regions with large crushed rock resources and permitted reserves (East Midlands and South West) and which are relatively close to major markets, continue to contribute substantially to the high levels of demand in more populated regions, notably London and the South East (where sand and gravel dominates and hard rock is scarce), and also the North West.

3.5 The South West was the largest producer of limestone for aggregate use at **18.7 Mt** (34% of total limestone sales) followed by the East Midlands with **11.0 Mt** (20%). The East Midlands accounted for 63% **(12.8 Mt)** of total igneous rock aggregates sales making it, by far, the largest producer.

COMPARISON WITH 2009

3.6 Almost all regions showed an increase **in total primary aggregate sales between 2009 and 2014** across all sectors of land-won sand and gravel, marine sand and gravel and crushed rock. **Sand and gravel sales in England increased by 12%** between 2009 (46.9 Mt) and 2014 (52.4 Mt) whilst **sand and gravel sales for Wales increased by 56%** between 2009 (1.4 Mt) and 2014 (2.1 Mt). **Crushed rock sales in England increased by 19%** between 2009 (59.3 Mt) and 2014 (70.5 Mt) and **crushed rock sales in Wales increased by 5%** between and 2009 (11.4 Mt) and 2014 (12.0 Mt).

3.7 **South Wales and North Wales showed the largest increase in total sand and gravel sales**, **61% and 49% respectively** followed by the East Midlands with a 20% increase and London and the East of England both

with 19% increases. Only Yorkshire and the Humber showed a decrease in sales of sand and gravel between 2009 and 2014 (of 20%). Some of the decrease of sales of land-won sand and gravel in Yorkshire and the Humber is as a result of several sites not providing a return in AM2014 and the relevant MPAs unable to provide an estimate.

3.8 Decreases in sales of land-won sand and gravel in London (35%) and the South East (2%) were offset by increases of 28% and 33% respectively in sales of marine sand and gravel.

3.9 The East of England (119%) and West Midlands (43%) showed the largest increases in crushed rock sales. The East Midlands and South West, the two regions accounting for the largest volumes of crushed rock aggregate sales, showed increases in sales of 11% and 25% respectively. **Only South Wales (4%) and the North West (1%) showed a modest decrease in crushed rock sales** between 2009 and 2014.

Comparison of sales of primary aggregates in 2009 and 2014

Thousand tonnes

Region	Land-won sand and gravel			Marine sand and gravel			Total sand and gravel			Crushed rock			Total primary aggregate		
	2009	2014	% change	2009	2014	% change	2009	2014	% change	2009	2014	% change	2009	2014	% change
South West	3 152	3 278	4%	487	645	32%	3 638	3 923	8%	17 206	21 439	25%	20 844	25 362	22%
South East	6 007	5 858	-2%	4 985	6 626	33%	10 992	12 484	14%	1 294	1 795	39%	12 286	14 279	16%
London	577	376	-35%	3 662	4 678	28%	4 239	5 054	19%				4 239	5 054	19%
East of England	9 666	11 586	20%	322	350	9%	9 989	11 936	19%	289	632	119%	10 278	12 568	22%
East Midlands	5 501	6 600	20%				5 501	6 600	20%	21 421	23 806	11%	26 922	30 407	13%
West Midlands	5 860	5 877	0%				5 860	5 877	0%	2 639	3 775	43%	8 500	9 651	14%
North West	2 180	2 461	13%	97	109	12%	2 276	2 571	13%	5 897	5 849	-1%	8 174	8 419	3%
Yorkshire & the Humber	2 929	2 509	-14%	192		-100%	3 122	2 509	-20%	7 240	9 040	25%	10 362	11 549	11%
North East	758	873	15%	563	537	-5%	1 321	1 410	7%	3 328	4 165	25%	4 649	5 575	20%
England	**36 631**	**39 418**	8%	**10 308**	**12 944**	26%	**46 938**	**52 363**	**12%**	**59 314**	**70 501**	**19%**	**106 253**	**122 864**	**16%**
South Wales	144	205	42%	613	1 013	65%	757	1 218	61%	8 185	7 825	-4%	8 942	9 043	1%
North Wales	589	897	52%	32	30	-6%	621	927	49%	3 245	4 168	28%	3 866	5 095	32%
Wales	**733**	**1 102**	50%	**645**	**1 043**	62%	**1 378**	**2 145**	**56%**	**11 430**	**11 994**	**5%**	12 808	14 138	**10%**
England and Wales	**37 363**	**40 520**	**8%**	**10 953**	**13 987**	28%	**48 316**	**54 507**	**13%**	**70 744**	**82 495**	**17%**	**119 061**	**137 002**	**15%**

1. Some of the decrease of sales of land-won sand and gravel in Yorkshire and the Humber is as a result of several sites not providing a return in AM2014 and the relevant MPAs not making an estimate.
2. The Crown Estate also record zero landings of marine sand and gravel in Yorkshire and the Humber in 2014.

4. END USES

4.1 Two main categories of end use data were collected namely for the various types of aggregates and for non-aggregate ('industrial') uses, where the latter were associated with aggregates extraction. The AM2014 survey covered only those sites that produced aggregates for sale, either as the principal or as an ancillary activity. Quarries extracting aggregate minerals solely for non-aggregate applications were not covered. The rationale for collecting some information on non-aggregate uses is that in certain circumstances the associated permitted reserves could alternatively be deployed to meet demand for aggregates.

4.2 Table 6 shows sales of primary aggregates (both crushed rock, and sand and gravel) grouped into broad end use product categories. Table A1, A2 and A3 in Appendix A provide sales by product for land-won sand and gravel, marine-dredged sand and gravel and crushed rock, respectively. End use figures should be treated with some caution. Although quarry operators will know what products they sell, they cannot always be sure what a product will ultimately be used for.

ALL PRIMARY AGGREGATES

4.3 Of total aggregate sales in 2014, 34% were used as concreting aggregate, 22% as roadstone (coated as asphalt and uncoated), 20% were used as other screened and graded aggregates, and 14% for other construction uses, including fill. The remaining 10% is split between building/asphalting sand, railway ballast, armourstone and undifferentiated aggregate use.

SAND & GRAVEL

4.4 Concreting aggregate again proved to be the largest product for both land-won and marine-dredged **sand and gravel,** accounting for some **55%** and **69%** of the respective totals for aggregate use. The other main products were, other screened and graded gravels, sand suitable for use in mortar and sand and gravel for construction fill

CRUSHED ROCK

4.5 Crushed rock has a wider range of uses including as a source of both coarse and fine **concrete aggregate (17%),** other screened and graded aggregates (24%) and for **other construction uses, including fill (17%).** However, its main use is in road construction, both unbound ('dry stone'), primarily for the foundations of roads and bound with either bitumen (to produce 'coated roadstone') or cement in the upper layers. Rocks with high skid resistant properties are required for the wearing course. **Coated roadstone and dry stone** represented the **largest crushed rock aggregate**

use at 28.0 Mt or 34% of total crushed rock aggregate sales. Of this total 14.5 Mt was sold as coated roadstone. Other smaller specialist uses, include railway track ballast (2.2 Mt) and armourstone (0.7 Mt).

NON-AGGREGATE USES

4.6 Although the data for non-aggregates uses (mainly limestone/ dolomite) are incomplete (see paragraph 4.1 above), the most important uses were cement manufacture, other unspecified industrial uses, a flux in iron/steel making and agricultural use (Table A3 and A5). Recorded **non-aggregate uses of crushed rock** were **16.3 Mt** in 2014, of which 96% (15.6 Mt) was limestone/dolomite. The **East Midlands** accounted for **11.2 Mt** of the limestone/dolomite total.

4.7 Sales of sand and gravel (mainly silica sand) for non-aggregate (industrial) uses were 2.9 Mt, almost all of which was produced in England. The North West was the major producing region, contributing 1.1 Mt.

5. INTER-REGIONAL FLOWS

5.1 The four yearly AM surveys are the only published source of information on aggregate sales by destination (region and, from AM2005, sub-region). The regions and sub-regions used are shown on Map 3. Quarry operators cannot always be sure of where their products will be sold, particularly for 'collect' sales. Consequently it has not been possible to allocate all sales of primary aggregates to definite destinations by either region or sub-region. 'Unallocated' sales of unknown destination were 2.6 Mt in 2014 (<2% of total sales). The inter-regional and sub-regional flow information is used to calculate consumption data and unallocated sales thus have the effect of reducing total consumption.

5.2 Maps 8 and 9 illustrate the pattern of inter-regional flows for sand and gravel, and crushed rock aggregate, respectively. The statistical results of the destination survey are presented in Tables 3, 4a-k and 5a-k for regions and Tables 9a-k, 10 and 11 for sub-regions. **Inter-regional flows of crushed rock are significantly larger than for sand and gravel because of the overall larger demand for crushed rock, particularly for roadstone, and because regions such as the South East, London and the East of England have only minor, or inferior quality, crushed rock resources.** In addition, the consistency and extent of some hard rock deposits permits their working on a very large scale, enabling much wider geographical areas to be served economically by rail. The transfer of crushed rock between regions is, therefore, more complex and uneven than for sand and gravel. It reflects the

combined pattern of the extent of crushed rock resources and markets /population (demand).

CRUSHED ROCK

5.3 **Total exports** of crushed rock from **Wales to England were 4.2 Mt** compared with **0.13 Mt** in the opposite direction. The traditionally large crushed rock producers in England, the **East Midlands and South West** have the largest exports representing **54% (12.8 Mt)** and **32% (6.8 Mt)** of their respective total crushed rock sales. Exports of crushed rock from North Wales, another traditional crushed rock exporter were 55% of crushed rock sales (2.3 Mt). The main importing regions were the **North West (7.7 Mt),** mainly from East Midlands and North Wales, the **South East (5.5 Mt)** mainly from the South West, the **East of England (4.2 Mt)** mainly from the East Midlands **and London (3.9 Mt),** mainly from the South West.

SAND & GRAVEL

5.4 In contrast, regional flows of sand and gravel were around a third of crushed rock. Total exports of sand and gravel from Wales to England were (0.16 Mt) compared with Welsh imports from England of (0.09 Mt). The leading exporters of sand and gravel were the East of England (2.2 Mt), the East Midlands (2.1 Mt) and the South East (1.7 Mt), and the leading importing regions were London (2.0 Mt), the East of England (1.6 Mt) and the South East (1.3 Mt).

5.5 The **South East dominates marine-dredged sales at 6.6 Mt**, with London at 4.7 Mt the second largest, followed by South Wales at 1.0 Mt.

5.6 In addition to inter-regional flows and material from conventional offshore dredging, **a significant amount of crushed rock (3.2 Mt)** was imported from outside England and Wales, mainly from Scotland and Norway. The largest proportion (1.2 Mt) was landed in the London.

COMPARISON WITH 2009

5.7 Net imports of primary aggregates into England from Wales increased by 73% from **2.4 Mt** in **2009** to **4.1 Mt** in **2014**. Imports of crushed rock from outside England and Wales have increased by 30% from **2.5 Mt to 3.2 Mt**. Sales of marine-dredged sand and gravel increased by 28% from **11.0 Mt to 14.0 Mt**.

6. CONSUMPTION

6.1 Apparent consumption figures (Tables 2b and 5a-k, and Map 7, and Table 11 for sub-regions) are calculated from data on sales within each home region (or sub-region), plus imports from other regions (or sub-regions) and, where appropriate, imports from outside England and Wales (Scotland,

Northern Ireland and Europe). The difference between the data for total sales and consumption (Table 1 and Map 11) is partly due to imports from outside England and Wales but also unallocated sales. Table D2 makes a comparison of consumption with all the previous AM surveys and Table E2 for the AWP regions used from AM2001 onwards.

6.2 **Total recorded apparent consumption of primary aggregates was 137.4 Mt in England and Wales**, to which should be added just over **2.6 Mt** of unallocated sales to give **140.1 Mt**. Four regions, East Midlands, South West, North Wales and South Wales were net exporters of aggregates and the remaining seven regions were net importers, to varying degrees. The **South East at 19.2 Mt** was the **largest consuming region,** with the South West (19.0 Mt) and the East Midlands (17.8 Mt) both close behind. The North West, the South East, and London are the regions **most heavily dependent upon imports**.

6.3 Some caution should be used in interpreting consumption figures as they are calculated from the principal destination of aggregate flows. Final sales, particularly for rail-borne aggregates, may be to other regions. For example, some material transported to the East of England may be finally consumed in London and the South East.

COMPARISON WITH 2009

6.4 Compared with 2009 there has been an increase (15%) in consumption of primary aggregates from **121.4 Mt to about 140.1 Mt**, including unallocated sales of 2.6 Mt.

7. MODE OF TRANSPORT

7.1 Table 8 shows the principal mode of transport employed for the distribution of aggregate sales (for the majority of the journey) from quarries and wharves. Overall, **road** accounted for **90.0 %** of all aggregates moved, **rail transport 9.7%** and shipment by **water 0.3%.** The comparable proportions for 2009 were **88.5%, 11.0% and 0.6%**, respectively.

7.2 For crushed rock, while volumes remained similar, the proportion of rail deliveries decreased from 16.3% (12.0 Mt) in 2009 to **14.2% (12.2 Mt) in 2014**. The use of rail transport in the South West and the East Midlands accounted for **5.5 Mt and 5.3 Mt** of all crushed rock aggregate rail forwardings respectively, the main destinations being the South East, East of England and London. Rail was also used for transporting crushed rock in Yorkshire and the Humber, London and the South East (both from wharves)

and South Wales. The principal transfers of crushed rock by water (sea) were from the South West to the South East.

8. RESERVES

8.1 Table 12 and Map 10 summarise reserves of primary aggregates with valid planning permissions at 31 December 2014 in active and inactive sites (i.e. 'permitted reserves'). Data for **inactive sites distinguishes between sites worked in the past, but still containing valid reserves, and sites where planning permission has been granted but extraction has not yet begun.** Reserves in sites classified as **'Dormant'** under the terms of the Planning & Compensation Act 1991 and the Environment Act 1995, are reported but excluded from the totals. Table D3 provides a comparison with all previous AM surveys and Table E3 for the AWP regions used from AM2001 onwards.

8.2 A large proportion of the reserves data are based on information supplied by mineral operators (calculated by them using a variety of methods). The remaining reserve data were estimated by MPAs in the absence of returns. Wherever possible estimates were based on earlier records (depleted for sales), or upon more general knowledge of the site.

8.3 **Total permitted reserves in active and inactive sites** for aggregate use at the end of 2014 were **3 906 Mt** of which crushed rock accounted for **88% (3 448 Mt)** and sand and gravel the remaining **12% (457 Mt)**. Sand and gravel reserves are much smaller in relation to average annual land-won sales (equivalent to about 11 years output in 2014) than crushed rock reserves, which are usually measured in terms of a few decades (42 years in 2014).

8.4 **Total permitted reserves in active sites** at the end of 2014 were **3 152 Mt**. In 2014 crushed rock accounted for **89%** and sand and gravel the remaining **11%** of reserves in active sites.

8.5 **Total permitted reserves in inactive sites were 754 Mt,** of which 679 Mt were in sites worked in the past and only 75 Mt in sites yet to be worked (greenfield sites). Reserves contained in inactive sites classified as 'Dormant' were **421 Mt**, of which **393 Mt** consisted of crushed rock and **29 Mt** sand and gravel.

COMPARISON WITH 2009

8.6 Total permitted reserves show a 14% **decrease of 642 Mt** on 2009 when total reserves for aggregate use were **4 547 Mt**, comprising **3 982 Mt**

of crushed rock and **565 Mt** of sand and gravel (excluding reserves for non-aggregate use and tonnages in dormant sites). Total permitted reserves in active sites show a 14% decrease from **3 646 Mt** in **2009.** Total permitted reserves in active sand and gravel sites show a 22% decrease from 437 Mt and crushed rock 12% from 3 209 Mt in 2009.

DISTRIBUTION

8.7 The distribution of reserves is very uneven reflecting broadly both geology and demand (Map 10). Of total reserves, **82% were in England**. Some **25% of all permitted reserves** were located in the **East Midlands** (compared with 22% of total sales), and **22%** in the **South West** (compared with 19% of total sales). These two regions also accounted for a significant proportion of total crushed rock reserves **(919 Mt or 27%, and 818 Mt or 24%** respectively). Excluding London, the regions with the smallest crushed rock reserves were East of England **(5 Mt)** and the South East **(52 Mt).** This reflects the extent of crushed rock resources in the respective regions.

8.8 **East of England** was the region with the highest level of sand and gravel reserves **(124 Mt)** equivalent to **27%** of the sand and gravel total. Other English regions with significant sand and gravel reserves were the West Midlands **(89 Mt),** South East **(67 Mt)**, and the East Midlands **(60 Mt)**. Only **4%** (19 Mt) of total sand and gravel reserves were in Wales.

9. ENVIRONMENTALLY DESIGNATED AREAS

9.1 As in previous surveys since AM97, systematic information on aggregates sales and reserves in statutorily designated areas were collected and are presented in Tables 7 and 13 respectively. In AM2009 data collection for Green Belts was re-introduced and was retained for AM2014. Apart from National Parks and AONBs, data for **designated areas are not mutually exclusive**. For example, SACs and SPAs are also SSSIs and all may occur in National Parks and AONBs. Consequently the different categories cannot be totalled. However, corresponding figures for 'All Sites' (land-won sites both in and outside such areas) are given to allow the figures to be placed in context.

9.2 Some designations, notably SSSIs, may only coincide with a small part of an extant mineral permission, which may, or may not, be active. The degree of overlap, and the actual or potential impacts of mineral extraction on the conservation interest, whether geological or biological, will vary and cannot be calculated or assumed from the figures presented. In addition, legal agreements may already exist which protect these designations from quarrying. The information, therefore, needs to be treated with caution.

SALES

9.3 Total sales of crushed rock in England and Wales in sites within National Parks and AONBs were 7.7 Mt and 4.0 Mt respectively. Comparable figures for land-won sand and gravel were 0.2 Mt and 1.4 Mt. Some **29.5 Mt total primary land-won aggregates** were produced from sites associated with **SSSIs.** Such sites accounted for 31% of crushed rock aggregate sales and 9% of total land-won sand and gravel sales. In contrast sales from sites within Green Belts were 5.0 Mt of crushed rock and 6.6 Mt of sand and gravel.

9.4 At regional level, **36% (2.7 Mt) of crushed rock quarried in National Parks was produced in the East Midlands,** i.e. in the Peak District National Park (mainly limestone). Elsewhere, National Parks in Yorkshire & the Humber accounted for a further **35% (2.7 Mt)**. The largest sales of crushed rock aggregates from AONBs (2.6 Mt) came from the South West.

RESERVES

9.5 Total reserves of aggregates in sites within **National Parks (356 Mt)** and **AONBs (281 Mt)** were **9%** and **7%** respectively of total permitted reserves. Of total reserves in National Parks and AONBs (638 Mt), crushed rock reserves accounted for some 96%, reflecting the upland nature of these designations due to the presence of more resistant rock types. Total reserves of sand and gravel, and crushed rock in National Parks and AONBs for non-aggregate use were 201 Mt in 2014.

9.6 Total aggregate reserves in sites in part associated with **SSSIs** were **919 Mt or 24%** of the total for England and Wales. They consist almost entirely (95%) of crushed rock. However, in many cases only a small part of a mineral permission may occur within an SSSI, whilst reserves relate to the whole site permitted for extraction. These figures should, therefore, be treated with caution. **Total reserves in Green Belts were 247 Mt,** comprising **158 Mt** of crushed rock and **89 Mt** of sand and gravel.

10. ALTERNATIVE AGGREGATES

10.1 The AM2014 survey was not confined to primary aggregates. It also collected data on those alternative aggregates which originate as a by-product of other quarrying operations. These principally included china clay waste and slate waste. **In total 2.3 Mt of such alternative aggregates were sold in 2014.**

11. PLANNING PERMISSIONS AND REFUSALS

11.1 Information has been collected on the numbers of sites granted and refused planning permission to supply wholly, or in part, aggregate minerals, and the amounts of mineral that these contained. In addition, the survey has collected information on the number of sites where a planning permission application has been withdrawn and not re-submitted or has yet to be determined. Data are presented by site type, e.g. new quarry, borrow pit or extension, and by environmental designation for the period 2010 to 2014.

11.2 'Permissions' issued under the terms of the Planning & Compensation Act 1991 and the Environment Act 1995 (ROMPs) have not been included. Similarly 'permissions' given by way of an amendment to a condition, for example extending the time limit of an existing valid permission or an increase in output, are also not included. This is because in these cases the permission did not provide additional reserves. Refusals of the above sites are also not included as the loss of the reserves, and also any reduction in reserves flowing from any modification of permission granted, are already incorporated in the reserve figure.

11.3 Tables 14 and 15 show the total number of **sites granted and refused planning permission by region between 2010 and 2014, inclusive**, and the amounts of mineral they contained. **Permissions, (207 or 94% of those granted/refused) greatly exceeded refusals (13). Total reserves of crushed rock granted planning permission between 2010 to 2014 were 281 Mt, of which 261 Mt were in England and 20 Mt in Wales.** The largest increases in crushed rock reserves were in the East Midlands (146 Mt) and Yorkshire and the Humber (33 Mt).

11.4 Total crushed rock reserves granted permission (281 Mt) were higher than in the period 2005 to 2009 (183 Mt), however, drawing a meaningful comparison is difficult due to the five year data collection period for AM2014 (compared to the four year period collected in AM2009). Looking at a comparable time period (2011-2014), total crushed rock reserves granted planning permission were 243 Mt, 33% higher than in the period 2005 to 2009.

11.5 Total reserves of sand and gravel granted planning permission between 2010 to 2014 were 149 Mt, of which 146 Mt were in England and 3.0 Mt in Wales. The largest additions were in the East of England (44 Mt), the South East (27 Mt) and the West Midlands (23 Mt).

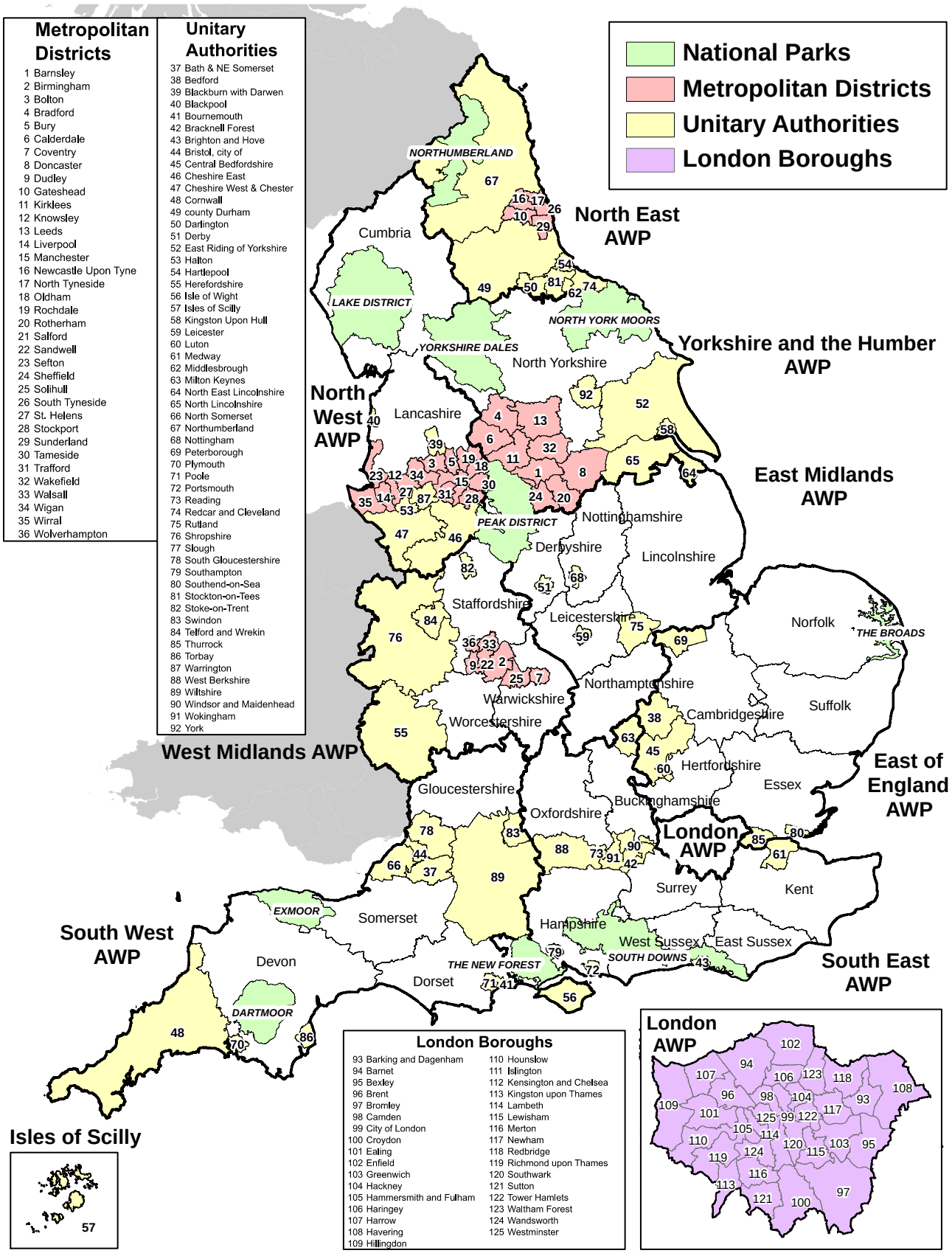
11.6 Total sand and gravel reserves granted planning permission between 2010 and 2014 (149 Mt) were lower than in the period 2005 to 2009 (166 Mt). Looking at a comparable time period (2011-2014), total sand and gravel reserves granted planning permission were 113 Mt, 32% lower than in the period 2005 to 2009.

11.7 Tables 16 and 17 show the number of sites currently awaiting a planning permission decision (as at 31 December 2014) or which have been withdrawn from the application process and not subsequently re-submitted between 2010 and 2014. **There are currently 61 sites where a planning permission decision is outstanding.** These sites comprise **180 Mt of total aggregate** split between 105 Mt crushed rock and 75 Mt sand and gravel. It is important to note that not all planning permission applications awaiting a decision may be granted. There are 9 sites whose planning permission application has been withdrawn and not subsequently re-submitted between 2010 and 2014. All of the aggregates in withdrawn applications (7.8 Mt) relate to sand and gravel sites.

11.8 The quantity of sand and gravel and crushed rock granted or refused permission and that either awaiting a decision or which has been withdrawn by site type and designated area is shown in Tables C1 to C16 in Appendix C. The quantity of crushed rock granted planning permission in National Parks and AONBs for the period 2010 to 2014 was 28.6 Mt and 13.4 Mt. For sand and gravel, the quantities were 2.9 Mt and 0.5 Mt respectively. The quantity of aggregate mineral granted planning permission in relation to SSSIs was 40.6 Mt for crushed rock and 7.5 Mt for sand and gravel. The quantity of mineral granted permission in relation to Green Belts was 5.3 Mt for crushed rock and 30.9 Mt for sand and gravel.

11.9 The AM2014 survey identified for the first time planning permission information in relation to aggregate sites located within areas of land allocated for mineral extraction (allocated site, preferred area, area of search) in the MPAs development plan. This information is shown in Tables C17 and C18 in Appendix C. The total quantity of aggregate mineral granted permission between 2010 and 2014 in sites located within areas allocated for mineral extraction in the MPAs development plan was 58.6 Mt (21% of total reserves permitted) for crushed rock and 76.1 Mt (51% of total reserves permitted) for sand and gravel.

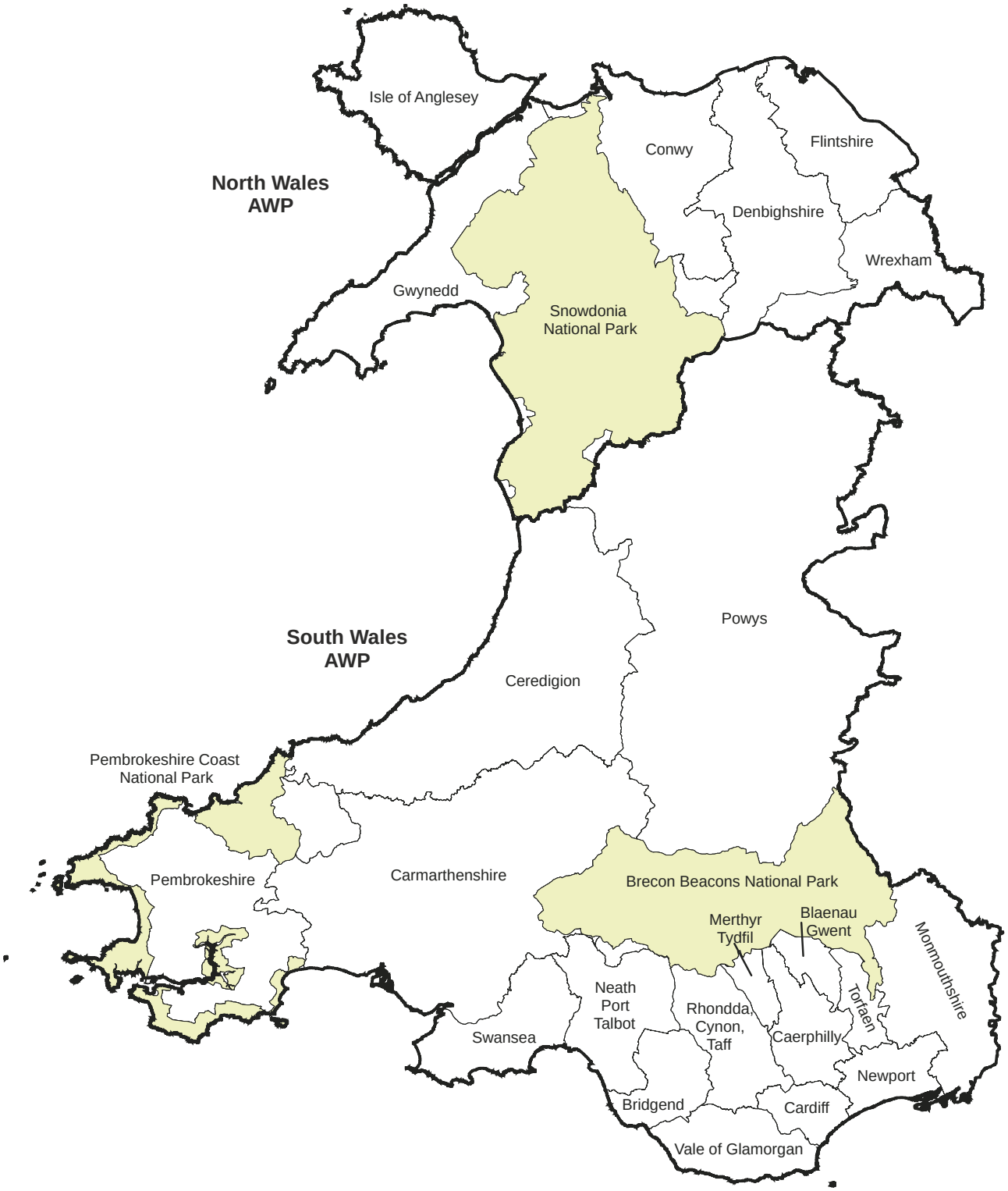
Map 1: Mineral Planning Authorities and Aggregate Working Party regions in England, 2014



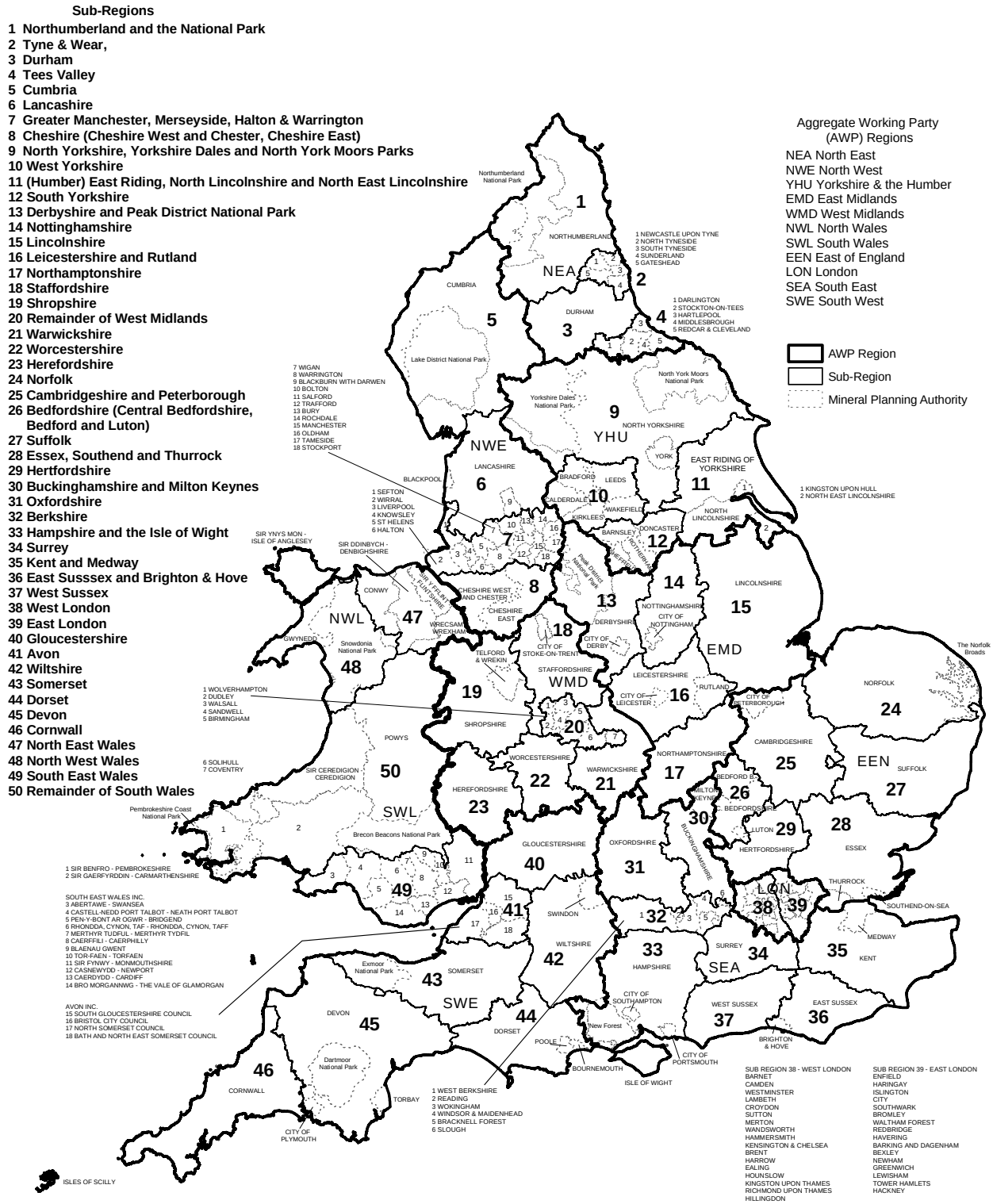
Produced by the Spatial Analysis Unit, ASD, DCLG

Data Sources:
OS Boundary Line
NOMIS

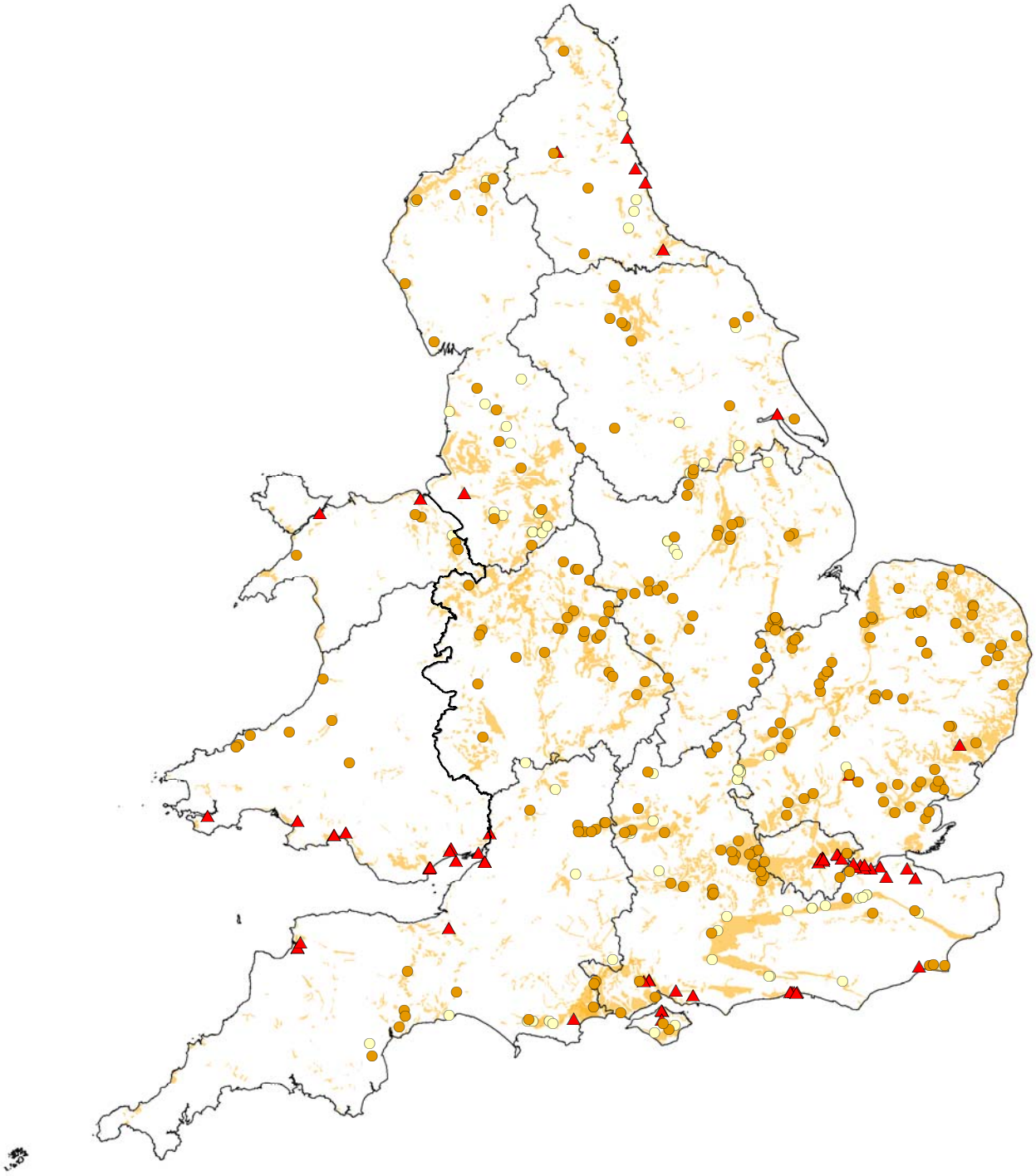
Map 2: Mineral Planning Authorities and Aggregate Working Party regions in Wales, 2014



Map 3: Sub-regions used for AM2014

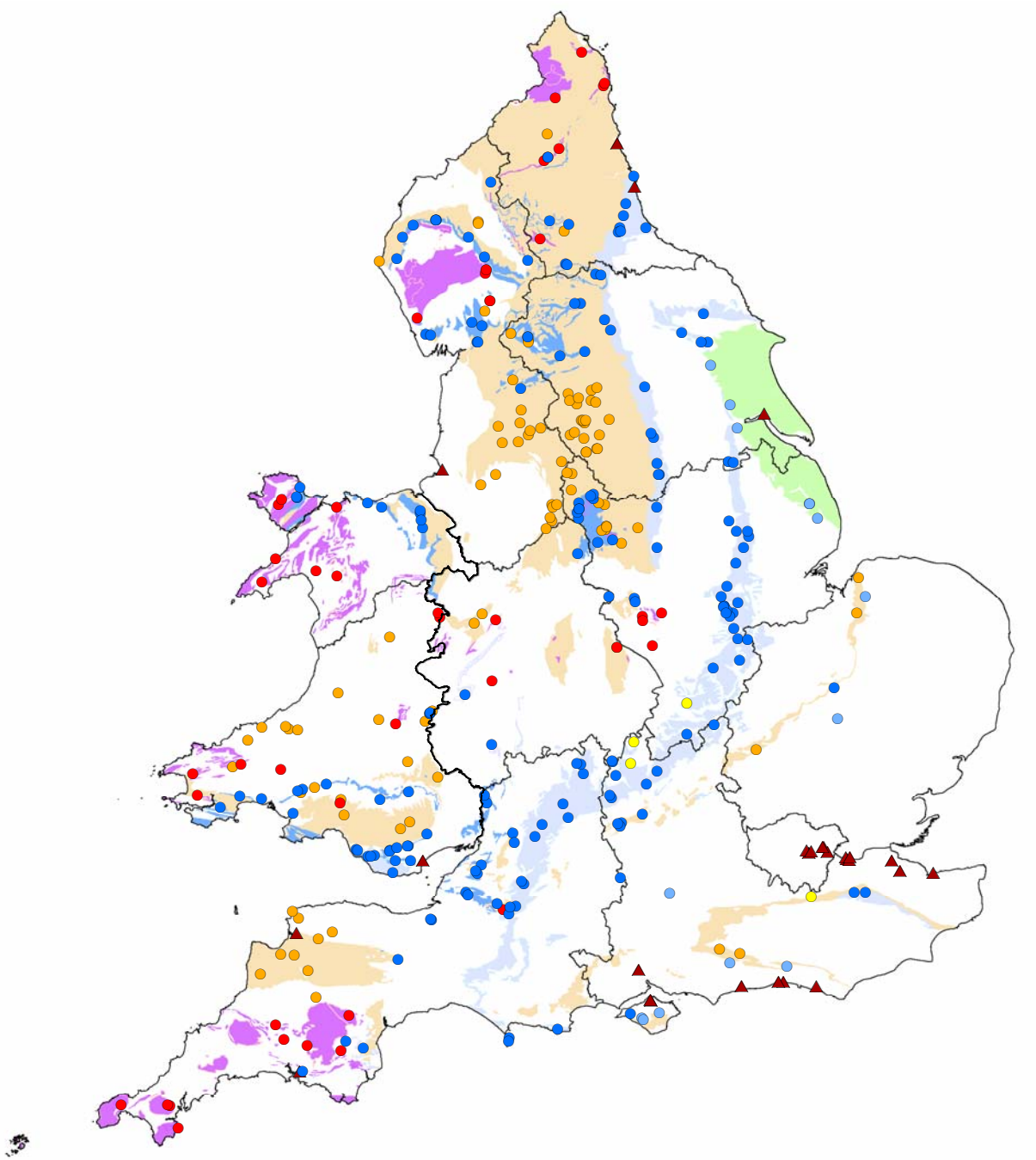


Map 4: Location of active sand and gravel quarries included in the survey



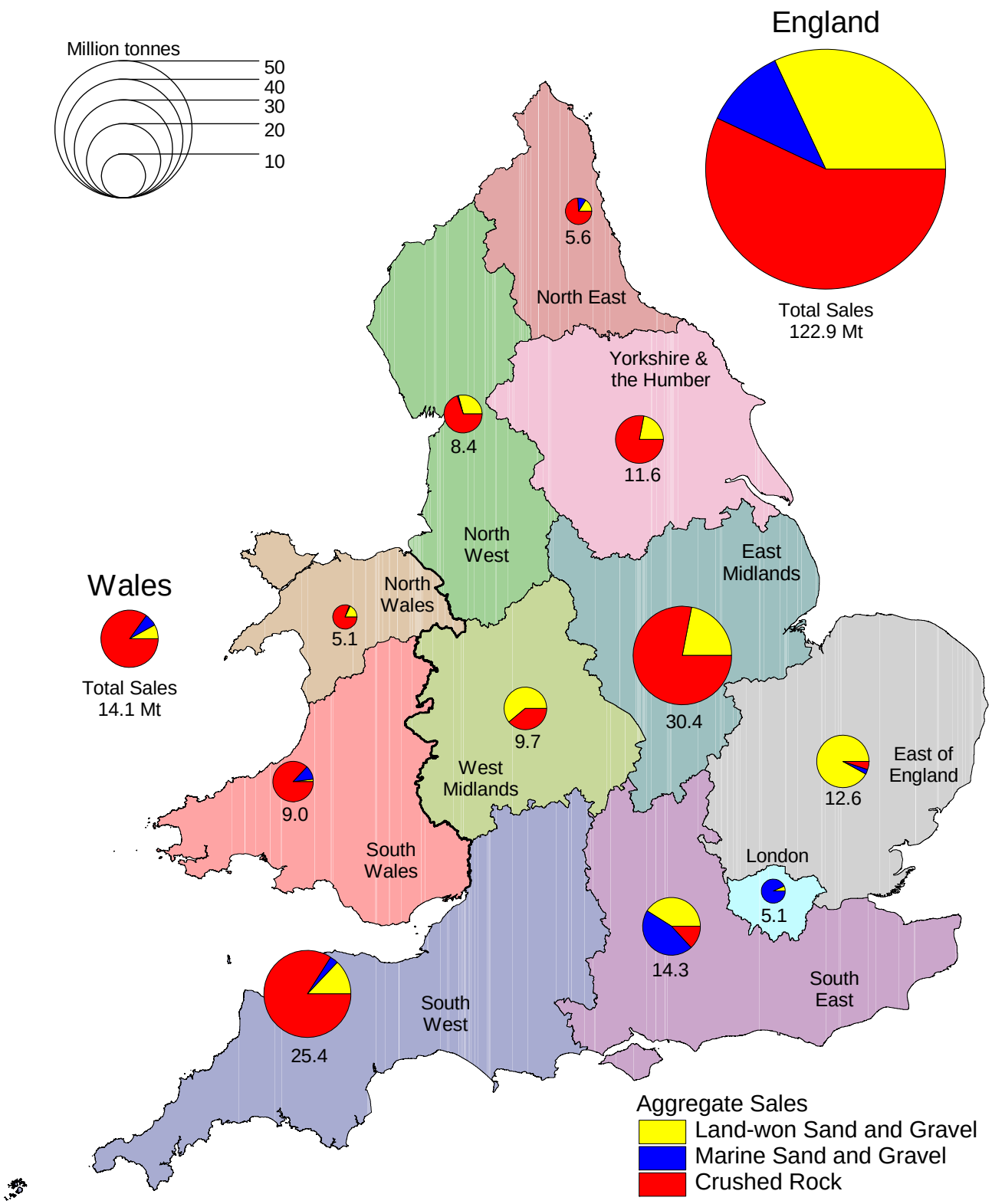
Extensive areas are shown as having no mineral resource present, but some mineral workings occur in these areas. The presence of these operations generally reflect very local or specific situations.

Map 5: Location of active crushed rock quarries included in the survey

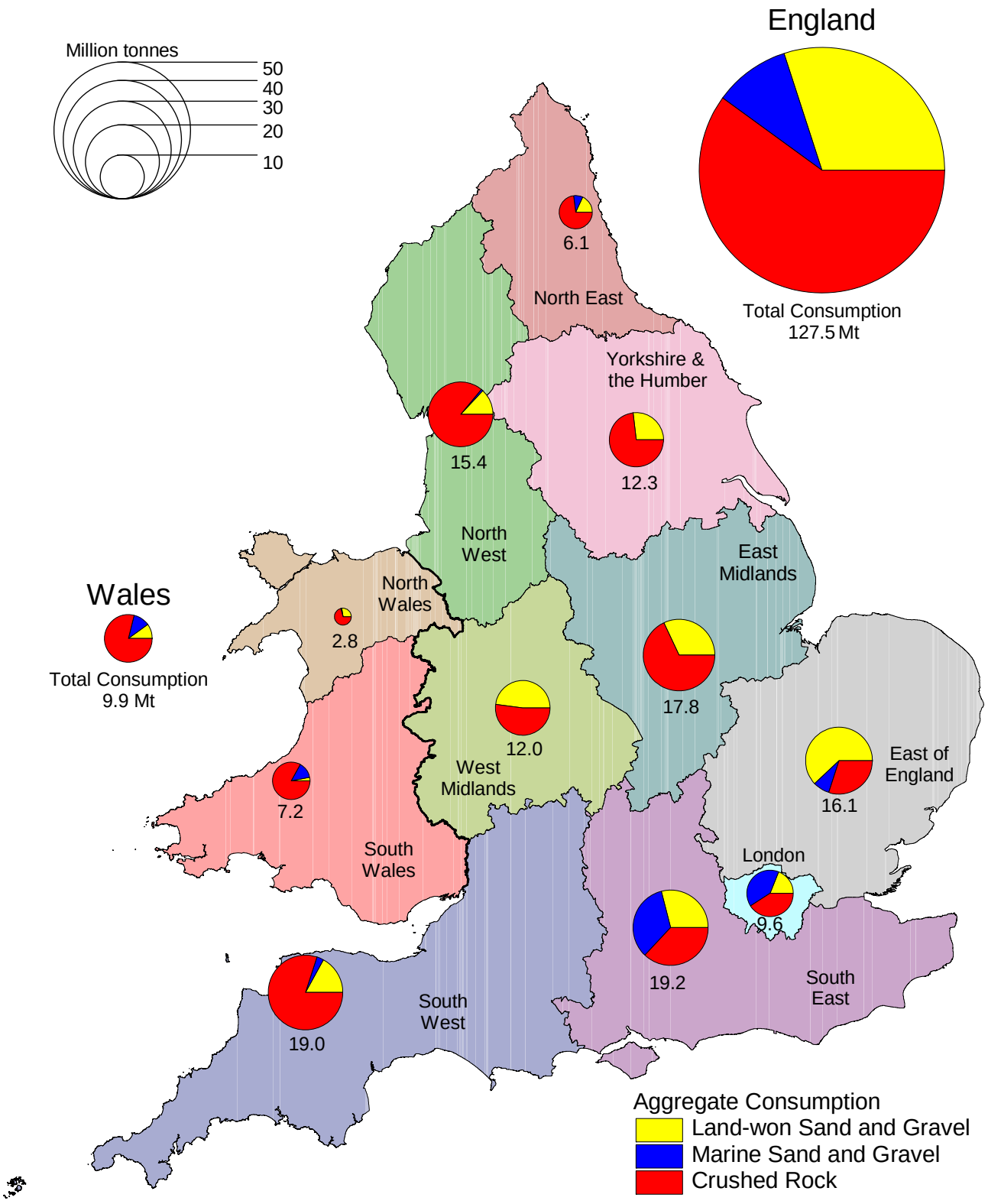


Extensive areas are shown as having no mineral resource present, but some mineral workings occur in these areas. The presence of these operations generally reflect very local or specific situations.
Chalk is generally unsuitable for use as aggregate. Younger chalk resource does exist in the East of England, South West and South East England regions. However, it is much softer and is not really a source for aggregates, therefore, it is not shown.

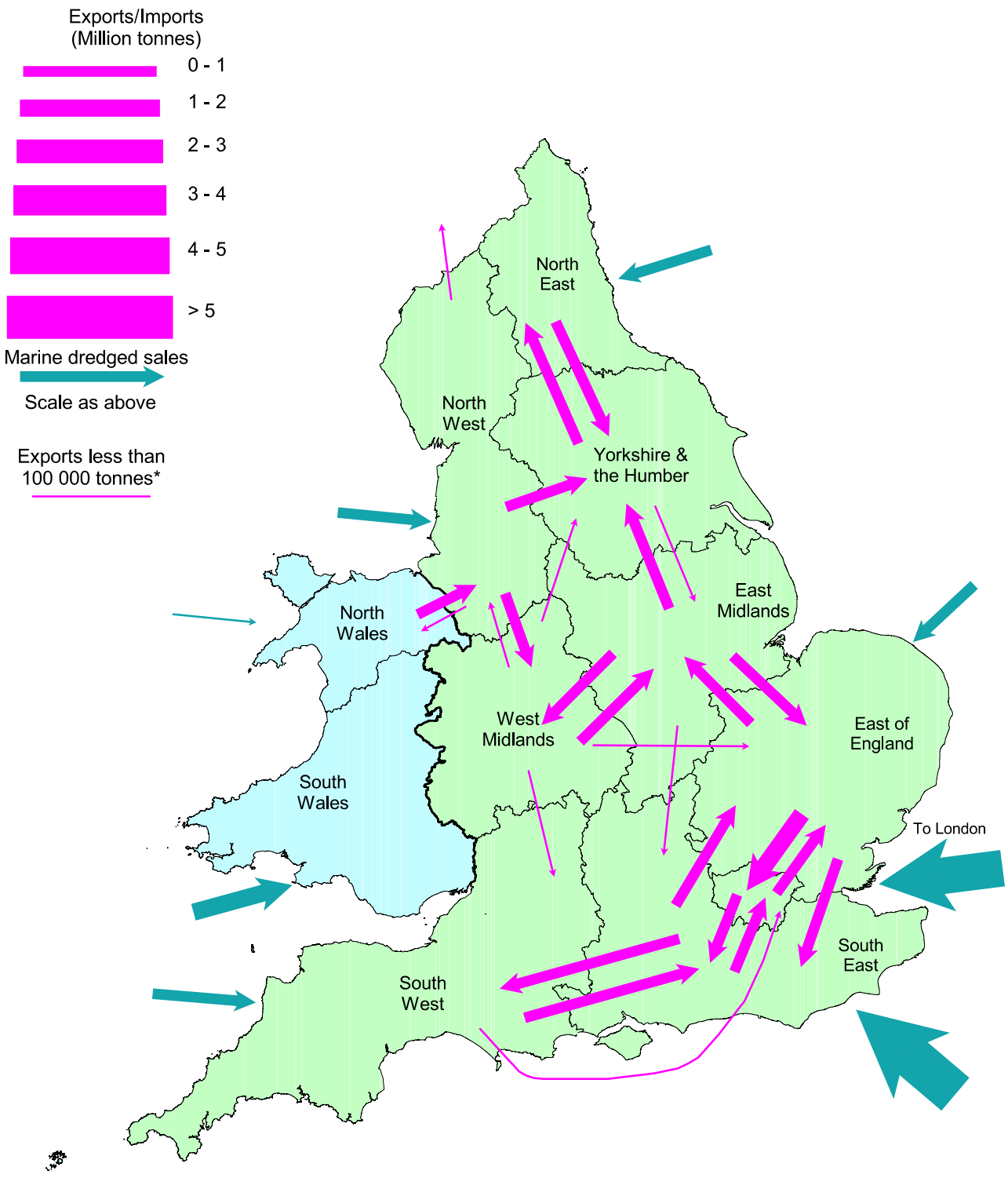
Map 6: Sales of sand and gravel and crushed rock for aggregates, 2014



Map 7: Consumption of sand and gravel and crushed rock for aggregates, 2014

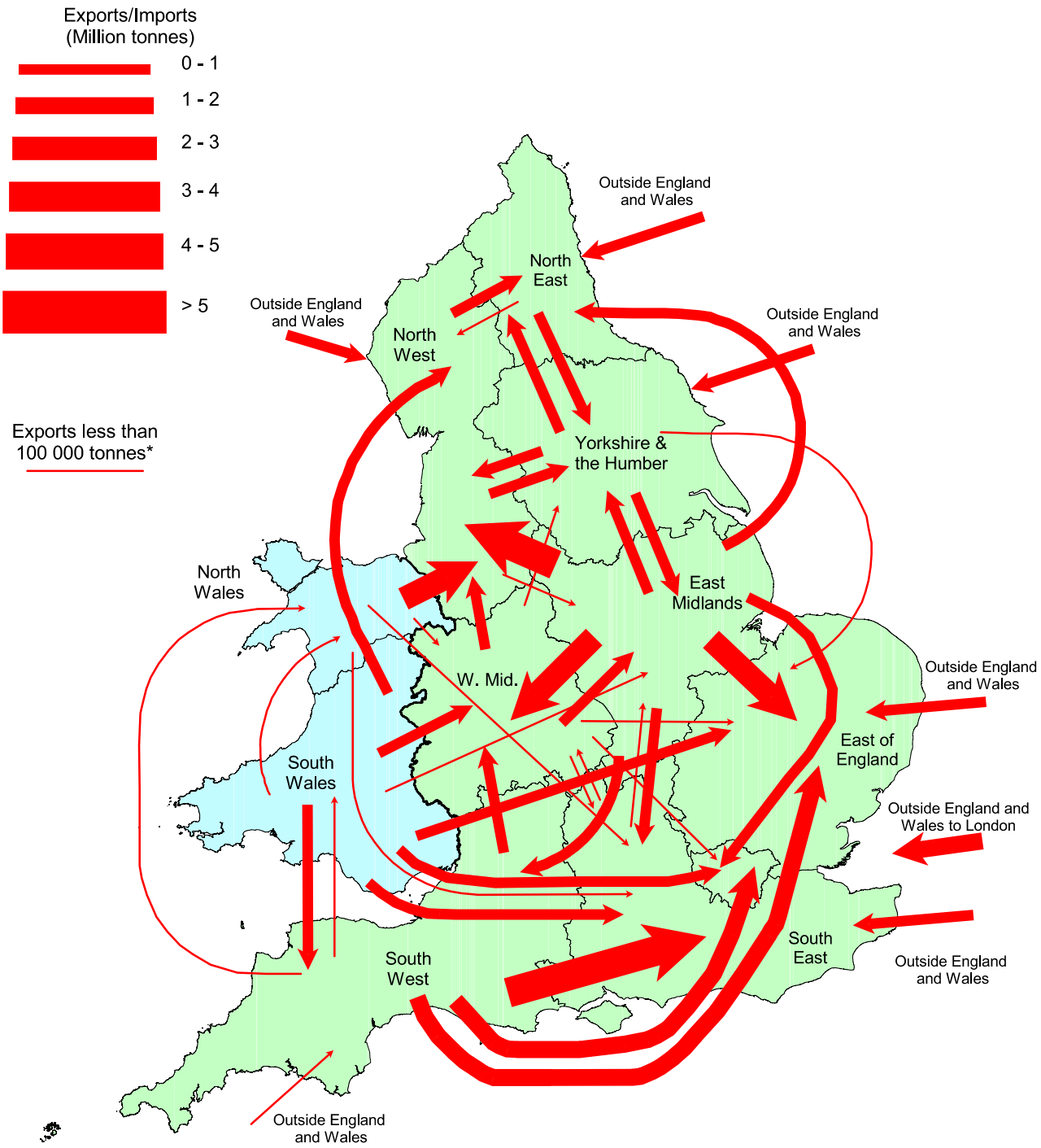


Map 8: Sand and gravel inter-regional flows, 2014



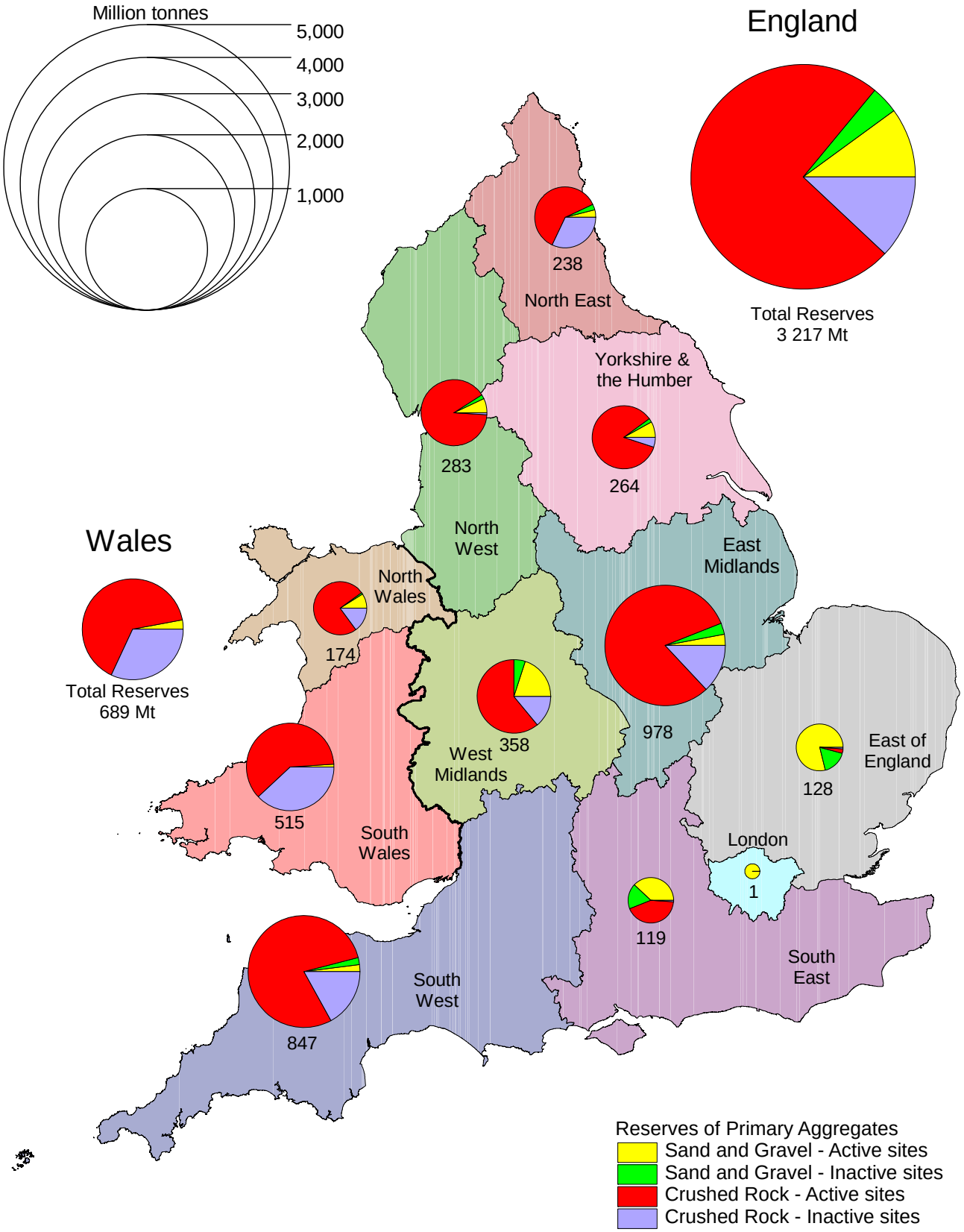
*For clarity, exports less than 25 000 tonnes are not shown.

Map 9: Crushed rock inter-regional flows, 2014

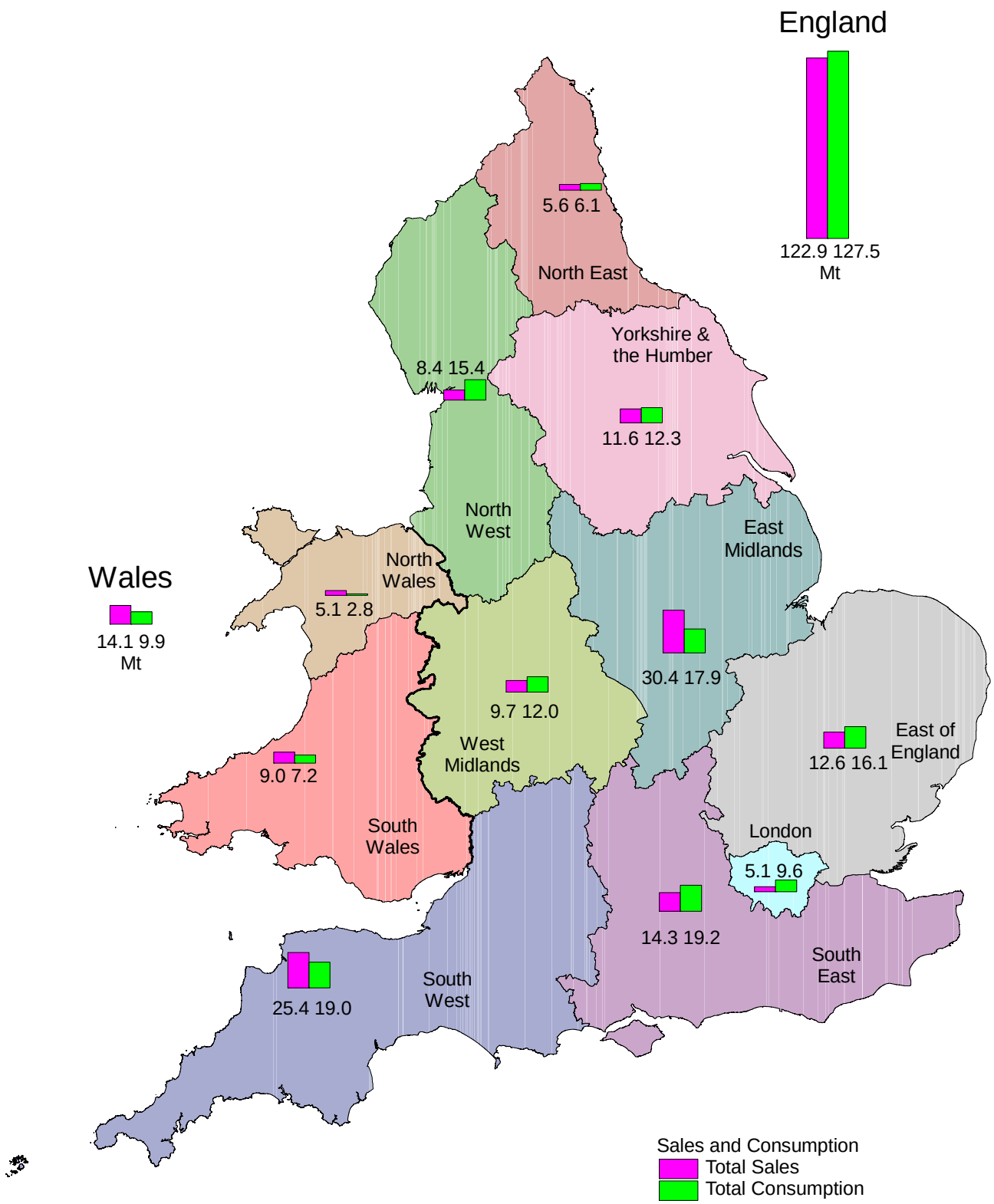


*For clarity, exports less than 25 000 tonnes are not shown.

Map 10: Permitted reserves of primary aggregates in England and Wales – active and inactive sites, 2014



Map 11: Sales and consumption of primary aggregates, 2014



*Figures for consumption are slightly underestimated because of the unknown destination of some sales (i.e. unallocated sales = c. 2.6 Mt).

Figure 1: Planning permission expiry dates for active quarries, 2014

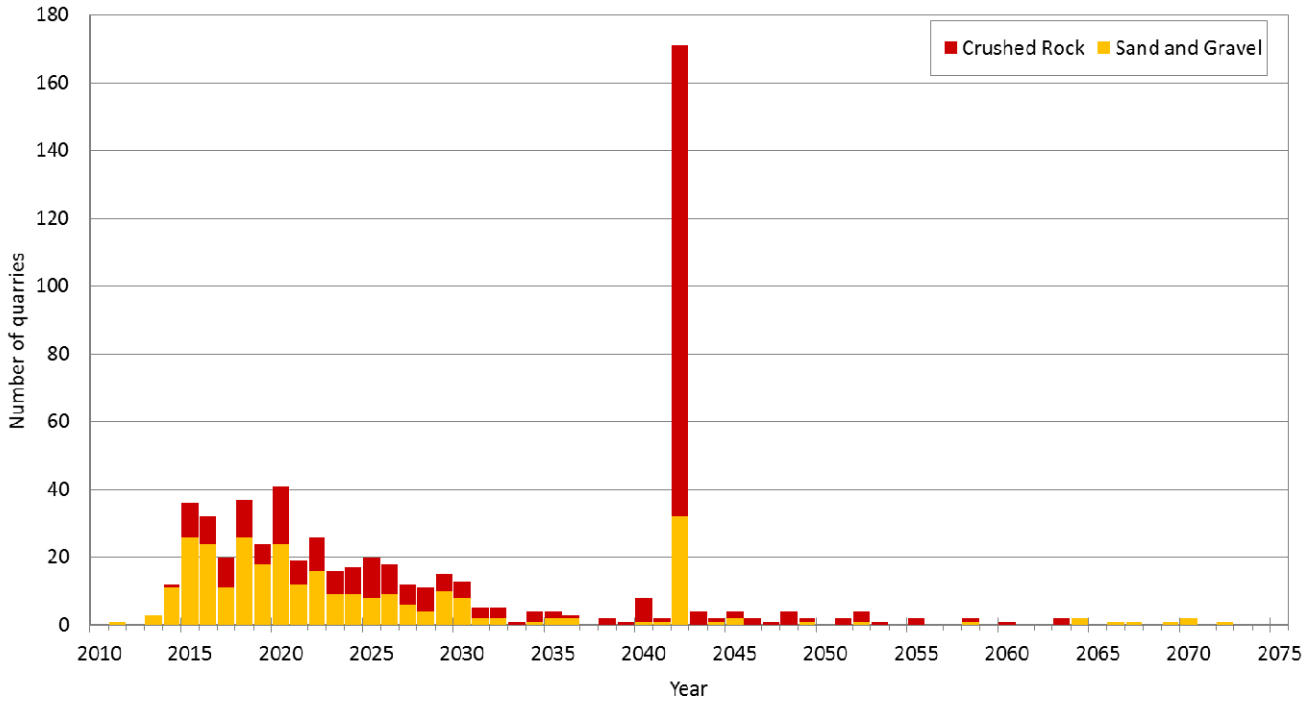


Figure 2: Planning permission expiry dates for active sand and gravel quarries, 2014

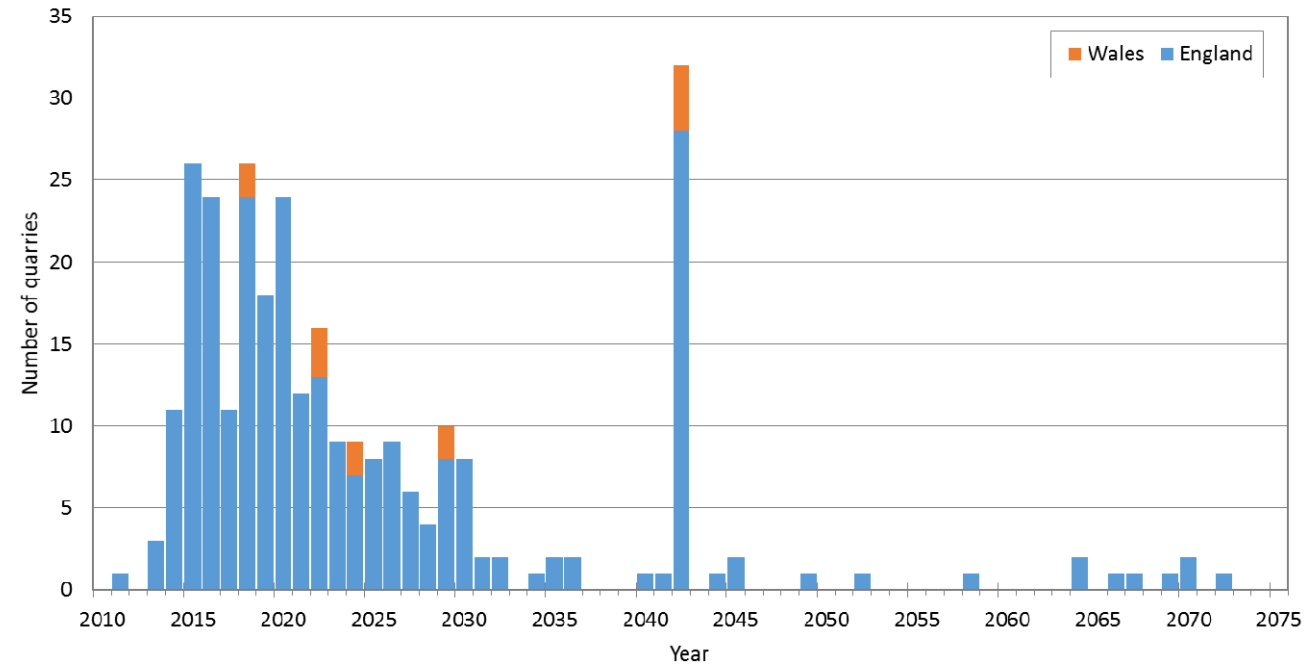
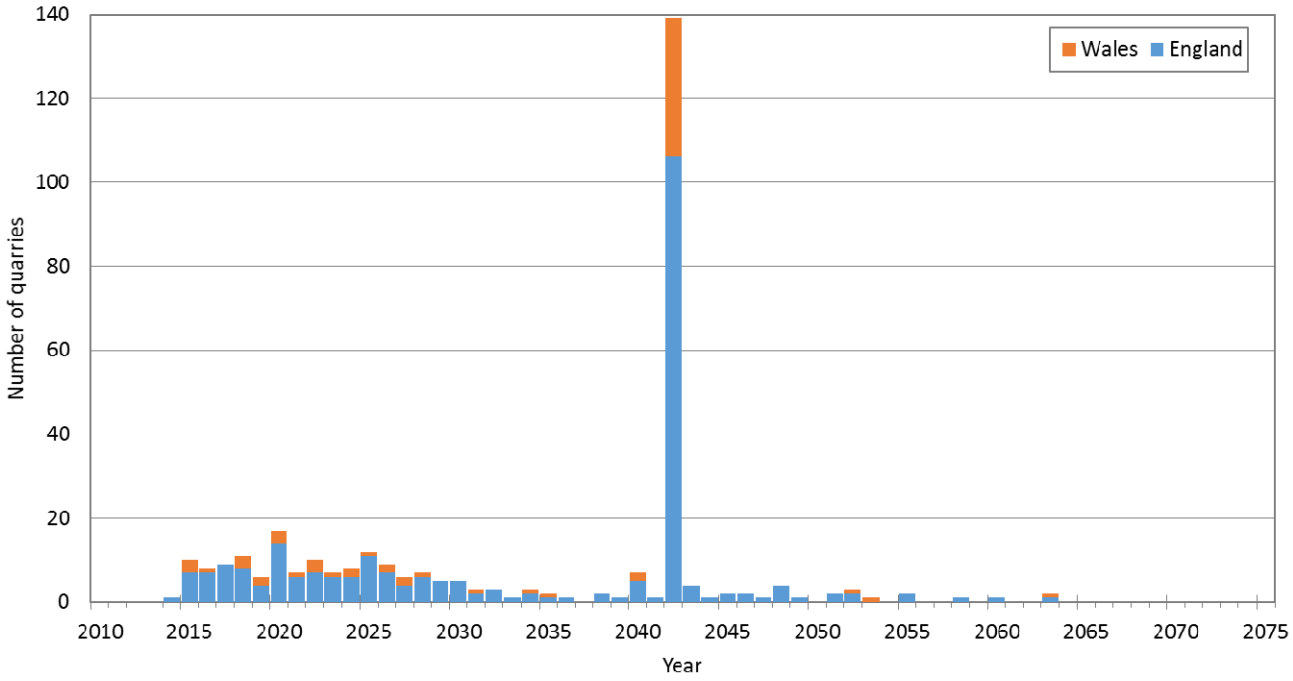


Figure 3: Planning permission expiry dates for active crushed rock quarries, 2014



General Notes on the Tables

A glossary of terms and abbreviations is provided as Appendix G. The following conventions have been used in the tables:

‘0’ Figure is less than 500 tonnes for all sales and consumption information and less than 0.5 Mt for reserves data.

‘ ’ A blank entry denotes a nil figure. (On rare occasions, a blank entry may conceal a confidential figure in order to allow publication of a regional total. Table footnotes indicate where this applies).

‘c’ Indicates a confidential figure. Totals include concealed confidential figures wherever possible.

Figures in the tables may not fully sum to the row or column total due to rounding.

The rationale behind the presentation of tables is as follows:

Tables 1 to 3 provide a summary of the main findings of the survey in respect of primary aggregate sales, consumption, and exports and imports by region.

Tables 4 and 5 present details by mineral type of sales (within and outside the Home region) and consumption and import data for each region.

Tables 6 to 8 present sales by major end use, environmental designation and transport method.

Table 9 provides details of aggregate flows from each Mineral Planning Authority to principal destination sub-region.

Tables 10 and 11 show imports and consumption of aggregates by sub-region.

Tables 12 and 13 show permitted reserves by site type (active/inactive) and environmental designation.

Tables 14 and 15 show total tonnages granted and refused planning permission between 2010 and 2014 inclusive.

Table 16 and 17 show total of tonnages awaiting planning permission and those withdrawn.

Table 18 shows the number of active land-based quarries and marine wharves that contributed to the survey.

Tables A1 to A5 provide more detailed information on sales by product (end use) and mineral type.

Tables B1 to B4 provide more comprehensive data on permitted reserves by mineral type and environmental designation.

Tables C1 to C18 provide details of planning permissions, refusals, awaiting and withdrawn by site type, environmental designation and within a development plan allocated area.

Tables D1 to D3 provide comparison of sales, consumption and reserves for 1973, 1977, 1985, 1989, 1993, 1997, 2001, 2005, 2009 and 2014.

Tables E1 to E3 provide comparison of sales, consumption and reserves for 2001, 2005, 2009 and 2014.

Table 1: Comparison of sales and consumption of primary aggregates in 2014

Region	Sales Total primary aggregates (thousand tonnes)	Consumption Total primary aggregates (thousand tonnes)	Sales as % of consumption	Net imports as % of consumption	Net exports as % of sales
South West	25 362	18 995	134%	-	25%
South East	14 279	19 197	74%	26%	-
London	5 054	9 573	53%	47%	-
East of England	12 568	16 118	78%	22%	-
East Midlands	30 407	17 819	171%	-	42%
West Midlands	9 651	12 043	80%	20%	-
North West	8 419	15 363	55%	45%	-
Yorkshire & the Humber	11 549	12 265	94%	6%	-
North East	5 575	6 118	91%	9%	-
England	**122 864**	**127 489**	**96%**		
South Wales	9 043	7 150	126%	-	21%
North Wales	5 095	2 798	182%	-	44%
Wales	**14 138**	**9 948**	**142%**		
England and Wales	**137 002**	**137 438**	**100%**		

1. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of aggregates from outside England and Wales.
2. Consumption includes sales within the home region, imports from other regions and imports from outside England and Wales. The figure for total consumption slightly underestimates true consumption because for some regions unallocated sales have an unknown destination. Taking into account unallocated sales, the total consumption of primary aggregates was 140.1 million tonnes.
4. 97.2% of total sales is based on figures supplied by site operators. The remaining 2.8% is based on estimates made by Mineral Planning Authorities.
5. Consumption is calculated using sales by destination data. 94.1% of total sales by destination is based on figures supplied by site operators. The remaining 5.9% is based on estimates made by Mineral Planning Authorities.

Table 2a: Summary sales of primary aggregates in 2014

Thousand tonnes

Region	Land-won sand and gravel	Marine sand and gravel	Total sand and gravel	Crushed rock	Total primary aggregate
South West	3 278	645	3 923	21 439	25 362
South East	5 858	6 626	12 484	1 795	14 279
London	376	4 678	5 054		5 054
East of England	11 586	350	11 936	632	12 568
East Midlands	6 600		6 600	23 806	30 407
West Midlands	5 877		5 877	3 775	9 651
North West	2 461	109	2 571	5 849	8 419
Yorkshire & the Humber	2 509		2 509	9 040	11 549
North East	873	537	1 410	4 165	5 575
England	**39 418**	**12 944**	**52 363**	**70 501**	**122 864**
(%)	**97%**	**93%**	**96%**	**85%**	**90%**
South Wales	205	1 013	1 218	7 825	9 043
North Wales	897	30	927	4 168	5 095
Wales	**1 102**	**1 043**	**2 145**	**11 994**	**14 138**
(%)	**3%**	**7%**	**4%**	**15%**	**10%**
England and Wales	**40 520**	**13 987**	**54 507**	**82 495**	**137 002**

1. For aggregate use only.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of aggregates from outside England and Wales.
3. These figures do not include the use of alternative, but still mineral-based, sources of aggregates. In England in 2014, 1.4 million tonnes of china clay waste (sand and rock) and 0.17 million tonnes of slate waste were also used for aggregate purposes. In Wales 0.5 million tonnes of slate waste was sold for aggregate use. In England and Wales, 0.17 million tonnes of by-product clay / shale was also sold for aggregate use. In addition, a small amount of colliery spoil was sold for aggregate use.
4. 95.7% of total sales is based on figures supplied by site operators. The remaining 4.3% is based on estimates made by Mineral Planning Authorities.

Table 2b: Summary of consumption of primary aggregates in 2014

Thousand tonnes

Region	Land-won sand and gravel	Marine sand and gravel	Total sand and gravel	Crushed rock	Total primary aggregate
South West	3 190	638	3 828	15 167	18 995
South East	5 623	6 448	12 071	7 126	19 197
London	1 834	3 849	5 683	3 890	9 573
East of England	9 965	1 311	11 276	4 841	16 118
East Midlands	5 678		5 678	12 141	17 819
West Midlands	5 750	4	5 753	6 289	12 043
North West	2 000	87	2 087	13 276	15 363
Yorkshire & the Humber	3 249	8	3 257	9 007	12 265
North East	1 097	528	1 625	4 494	6 118
England	**38 385**	**12 874**	**51 259**	**76 230**	**127 489**
(%)	**97%**	**92%**	**96%**	**91%**	**93%**
South Wales	247	1 011	1 258	5 892	7 150
North Wales	762	52	815	1 983	2 798
Wales	**1 010**	**1 063**	**2 073**	**7 875**	**9 948**
(%)	**3%**	**8%**	**4%**	**9%**	**7%**
England and Wales	**39 395**	**13 937**	**53 332**	**84 105**	**137 438**

1. For aggregate use only.

2. Consumption data includes sales within the home region, imports from other regions and imports from outside England and Wales. The figure for total consumption slightly underestimates true consumption because for some regions unallocated sales have an unknown destination. Taking into account unallocated sales, the total consumption of primary aggregates was 140.1 million tonnes.

3. Total unallocated sales = Sand and gravel 1.1 million tonnes
   Crushed rock 1.5 million tonnes

4. Consumption is calculated using sales by destination data. 94.1% of total sales by destination is based on figures supplied by site operators. The remaining 5.9% is based on estimates made by Mineral Planning Authorities.

Table 3: Summary of exports and imports of primary aggregates (land-won and marine) in 2014

Thousand tonnes

	Exports		Imports	
Region	**Sand and gravel**	**Crushed rock**	**Sand and gravel**	**Crushed rock**
South West	500	6 792	402	587
South East	1 724	148	1 311	5 478
London	1 417		2 046	3 890
East of England	2 216	23	1 562	4 233
East Midlands	2 095	12 758	1 173	931
West Midlands	759	961	636	3 477
North West	723	313	240	7 740
Yorkshire & the Humber	406	1 797	1 154	1 765
North East	136	507	351	835
England	**9 977**	**23 298**	**8 874**	**28 936**
South Wales	2	2 012	42	79
North Wales	158	2 281	46	126
Wales	**160**	**4 293**	**88**	**205**
England and Wales	**10 137**	**27 591**	**8 962**	**29 141**

1. Sand and gravel includes marine-dredged sales.
2. Exports and imports do not include quantities of unallocated sales to unknown destinations.
3. Exports include minor quantities to areas outside England & Wales (0.23 million tonnes).
4. Imports include aggregates imported from outside England and Wales (3.2 million tonnes), principally crushed rock.

Table 4a: Sales of aggregates and aggregate minerals by region in 2014: South West

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	3 278	129	3 407
	Marine dredged	645	6	650
	Total	**3 923**	**134**	**4 057**
Crushed rock	Limestone / dolomite	18 652	504	19 155
	Igneous rock	2 329	8	2 337
	Sandstone	459	2	460
	Chalk			
	Ironstone			
	Total	**21 439**	**513**	**21 953**
	Total Aggregates	**25 362**	**648**	**26 010**
	Percent	98%	2%	100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region												
				Total sales	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Scotland	Europe
Sand and gravel	Land won	2 841		436	324	93	0	0	11	0	1		7			
	Marine dredged	586	54	9	6				3				0	0		
	Total	**3 427**	**54**	**445**	**330**	**93**	**0**	**0**	**14**	**0**	**1**		**7**	**0**		
Crushed rock	Limestone / dolomite	12 359	0	6 225	3 277	1 505	1 085	2	285			0	45	26		
	Igneous rock	1 769	312	247	206		0		37		1					1
	Sandstone	453		6	6											
	Chalk															
	Ironstone															
	Total	**14 580**	**312**	**6 478**	**3 489**	**1 505**	**1 086**	**c**	**322**		**1**	**0**	**45**	**26**		**1**
	Total Aggregates	**18 007**	**367**	**6 924**	**3 819**	**1 598**	**1 086**	**c**	**337**		**1**	**0**	**52**	**27**		**1**

1. In addition about 1.5 million tonnes of china clay waste (sand and rock) were sold as aggregate.

Table 4b: Sales of aggregates and aggregate minerals by region in 2014: South East

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	5 858	794	6 652
	Marine dredged	6 626	0	6 626
	Total	**12 484**	**794**	**13 278**
Crushed rock	Limestone / dolomite	1 603	39	1 643
	Igneous rock			
	Sandstone			
	Chalk	16	26	42
	Ironstone	176	19	195
	Total	**1 795**	**84**	**1 879**
	Total Aggregates	**14 279**	**878**	**15 157**
	Percent	94%	6%	100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region											
				Total sales	South West	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Scotland	Europe
Sand and gravel	Land won	4 646	344	867	284	495	61	6	5	12	3		1			
	Marine dredged	6 113	0	513	51	387	75						0			
	Total	**10 759**	**344**	**1 380**	**335**	**882**	**136**	**6**	**5**	**12**	**3**		**1**			
Crushed rock	Limestone / dolomite	1 502	4	97	14	2	5	39	37							
	Igneous rock															
	Sandstone															
	Chalk	16														
	Ironstone	130	6	40				20	20							
	Total	**1 648**	**10**	**137**	**14**	**2**	**5**	**59**	**57**							
	Total Aggregates	**12 407**	**354**	**1 519**	**350**	**884**	**141**	**65**	**63**	**12**	**3**		**1**			

1. Marine dredged sand and gravel sales include a small quantity landed from Danish and Dutch waters.

Table 4c: Sales of aggregates and aggregate minerals by region in 2014: London

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	376		376
	Marine dredged	4 678		4 678
	Total	**5 054**		**5 054**
Crushed rock	Limestone / dolomite			
	Igneous rock			
	Sandstone			
	Chalk			
	Ironstone			
	Total			
	Total Aggregates	**5 054**		**5 054**
	Percent	100%		100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region											
				Total sales	South West	South East	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Scotland	Europe
Sand and gravel	Land won	245		131		131									
	Marine dredged	3 392		1 285		329	956				0				
	Total	**3 637**		**1 416**		**460**	**956**				**0**				
Crushed rock	Limestone / dolomite														
	Igneous rock														
	Sandstone														
	Chalk														
	Ironstone														
	Total														
	Total Aggregates	**3 637**		**1 416**		**460**	**956**				**0**				

Table 4d: Sales of aggregates and aggregate minerals by region in 2014: East of England

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	11 586	376	11 962
	Marine dredged	350		350
	Total	**11 936**	**376**	**12 312**
Crushed rock	Limestone / dolomite	572		572
	Igneous rock			
	Sandstone	60		60
	Chalk		20	20
	Ironstone			
	Total	**632**	**20**	**652**
	Total Aggregates	**12 568**	**396**	**12 963**
	Percent	97%	3%	100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region												
				Total sales	South West	South East	London	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Scotland	Europe
Sand and gravel	Land won	9 435	126	2 021	0	408	1 001	594	16	1	1	0	0	0		
	Marine dredged	280		70		0	70									
	Total	**9 715**	**126**	**2 090**	**0**	**408**	**1 070**	**594**	**16**	**1**	**1**	**0**	**0**	**0**		
Crushed rock	Limestone / dolomite	549		23		11	10	1	1			0				
	Igneous rock															
	Sandstone	60		0				0								
	Chalk															
	Ironstone															
	Total	**609**		**24**		**11**	**10**	**2**	**1**			**0**				
	Total Aggregates	**10 323**	**126**	**2 113**	**0**	**419**	**1 080**	**595**	**17**	**1**	**1**	**0**	**0**	**0**		

1. Marine dredged sand and gravel sales include a small quantity landed from Danish waters.

Table 4e: Sales of aggregates and aggregate minerals by region in 2014: East Midlands

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	6 600	296	6 897
	Marine dredged			
	Total	**6 600**	**296**	**6 897**
Crushed rock	Limestone / dolomite	10 971	11 177	22 148
	Igneous rock	12 765	1	12 766
	Sandstone	10	75	86
	Chalk			
	Ironstone	60	1	61
	Total	**23 806**	**11 254**	**35 061**
	Total Aggregates	**30 407**	**11 551**	**41 958**
	Percent	72%	28%	100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region											
				Total sales	South West	South East	London	East of England	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Scotland	Europe
Sand and gravel	Land won	4 505	265	1 830	3	89		405	480	3	850	0	0			
	Marine dredged															
	Total	**4 505**	**265**	**1 830**	**3**	**89**		**405**	**480**	**3**	**850**	**0**	**0**			
Crushed rock	Limestone / dolomite	4 951	1 176	5 007	1	29	2	253	786	3 506	423	1	1	5	0	
	Igneous rock	6 196		6 568	159	775	888	2 412	1 283	325	551	153	19	2	1	
	Sandstone	2	8	0					0	0						
	Chalk															
	Ironstone	60														
	Total	**11 210**	**1 184**	**11 573**	**159**	**804**	**890**	**2 665**	**2 069**	**3 831**	**974**	**154**	**19**	**7**	**1**	
	Total Aggregates	**15 714**	**1 448**	**13 404**	**162**	**893**	**890**	**3 070**	**2 549**	**3 834**	**1 825**	**154**	**19**	**7**	**1**	

1. Limestone in the East Midlands includes small amounts of chalk to maintain confidentiality.

Table 4f Sales of aggregates and aggregate minerals by region in 2014: West Midlands

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	5 877	5	5 881
	Marine dredged			
	Total	**5 877**	**5**	**5 881**
Crushed rock	Limestone / dolomite	471	44	515
	Igneous rock	1 363		1 363
	Sandstone	1 941	0	1 941
	Chalk			
	Ironstone			
	Total	**3 775**	**44**	**3 819**
	Total Aggregates	**9 651**	**49**	**9 700**
	Percent	99%	1%	100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region												
				Total sales	South West	South East	London	East of England	East Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Scotland	Europe
Sand and gravel	Land won	5 117		761	52	9		56	500	70	49	1	20	4		
	Marine dredged	0														
	Total	**5 117**		**761**	**52**	**9**		**56**	**500**	**70**	**49**	**1**	**20**	**4**		
Crushed rock	Limestone / dolomite	426	33	11	1					2			2	6		
	Igneous rock	1 240		122	2	3	0	30	73	11	0			3	0	
	Sandstone	1 146		793	1	64	71	51	193	344	53		1	15		
	Chalk															
	Ironstone															
	Total	**2 812**	**33**	**927**	**4**	**66**	**72**	**81**	**267**	**357**	**53**		**3**	**24**	**0**	
	Total Aggregates	**7 929**	**33**	**1 689**	**56**	**75**	**72**	**138**	**767**	**428**	**101**	**1**	**23**	**28**	**0**	

Table 4g Sales of aggregates and aggregate minerals by region in 2014: North West

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	2 461	1 113	3 574
	Marine dredged	109		109
	Total	**2 571**	**1 113**	**3 683**
Crushed rock	Limestone / dolomite	3 706	712	4 418
	Igneous rock	328		328
	Sandstone	1 815	253	2 068
	Chalk			
	Ironstone			
	Total	**5 849**	**965**	**6 814**
	Total Aggregates	**8 419**	**2 078**	**10 498**
	Percent	80%	20%	100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region												
				Total sales	South West	South East	London	East of England	East Midlands	West Midlands	Yorkshire & Humber	North East	South Wales	North Wales	Scotland	Europe
Sand and gravel	Land won	1 760	301	399	10	15	1	8	14	102	118	16	15	19	80	1
	Marine dredged	87		22										22		
	Total	**1 847**	**301**	**421**	**10**	**15**	**1**	**8**	**14**	**102**	**118**	**16**	**15**	**41**	**80**	**1**
Crushed rock	Limestone / dolomite	3 578		128					0		78	48			2	
	Igneous rock	204		123			0	0	15	1	29	75			3	
	Sandstone	1 754		60					34	1	15	10			0	
	Chalk															
	Ironstone															
	Total	**5 535**		**312**			**0**	**0**	**49**	**3**	**122**	**133**			**5**	
	Total Aggregates	**7 383**	**301**	**733**	**10**	**15**	**1**	**8**	**63**	**105**	**240**	**149**	**15**	**41**	**85**	**1**

1. Limited information was received on sales of marine sand and gravel in the region. Crown Estate landings (not all sold) were 206 504 tonnes. This figure is not included in this or any other table.

Table 4h Sales of aggregates and aggregate minerals by region in 2014: Yorkshire and the Humber

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	2 509	c	c
	Marine dredged			
	Total	**2 509**	c	c
Crushed rock	Limestone / dolomite	7 677	536	8 213
	Igneous rock			
	Sandstone	1 314	59	1 373
	Chalk	49	42	91
	Ironstone			
	Total	**9 040**	**637**	**9 677**
	Total Aggregates	**11 549**	c	c
	Percent	*c*	*c*	*c*

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region												
				Total sales	South West	South East	London	East of England	East Midlands	West Midlands	North West	North East	South Wales	North Wales	Scotland	Europe
Sand and gravel	Land won	2 103	0	405					59		12	334		0		
	Marine dredged															
	Total	**2 103**	**0**	**405**					**59**		**12**	**334**		**0**		
Crushed rock	Limestone / dolomite	6 340		1 338		0		5	488	11	449	382		0	3	
	Igneous rock															
	Sandstone	878		436	1	3	0	2	14	7	387	14	3		5	
	Chalk	25		24				24								
	Ironstone															
	Total	**7 243**		**1 797**	**1**	**3**	**0**	**31**	**502**	**18**	**836**	**396**	**3**	**0**	**7**	
	Total Aggregates	**9 346**	**0**	**2 202**	**1**	**3**	**0**	**31**	**561**	**18**	**848**	**730**	**3**	**0**	**7**	

1. Marine dredged sand and gravel sales include a small quantity landed from Danish waters.

Table 4i Sales of aggregates and aggregate minerals by region in 2014: North East

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	873	c	c
	Marine dredged	537		537
	Total	**1 410**	**c**	**c**
Crushed rock	Limestone / dolomite	2 881	1 065	3 946
	Igneous rock	1 281	1	1 282
	Sandstone	3	4	7
	Chalk			
	Ironstone			
	Total	**4 165**	**1 070**	**5 235**
	Total Aggregates	**5 575**	**c**	**c**
	Percent	c	c	100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region											
				Total sales	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	South Wales	North Wales	Scotland	Europe
Sand and gravel	Land won	746		128								125			3	
	Marine dredged	528		9							0	8			1	
	Total	**1 274**		**136**							**0**	**133**			**3**	
Crushed rock	Limestone / dolomite	2 506		375							26	349			0	
	Igneous rock	1 150		132	0	0	1	1	15	1	18	37	0		2	57
	Sandstone	3														
	Chalk															
	Ironstone															
	Total	**3 658**		**507**	**0**	**0**	**1**	**1**	**15**	**1**	**44**	**386**	**0**		**2**	**57**
	Total Aggregates	**4 932**		**643**	**0**	**0**	**1**	**1**	**15**	**1**	**44**	**519**	**0**		**5**	**57**

1. Marine dredged sand and gravel sales include a small quantity landed from Danish waters.

Table 4j Sales of aggregates and aggregate minerals by region in 2014: South Wales

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	205	112	317
	Marine dredged	1 013	141	1 154
	Total	**1 218**	**253**	**1 471**
Crushed rock	Limestone / dolomite	4 540	840	5 380
	Igneous rock	1 577	3	1 579
	Sandstone	1 709	137	1 845
	Chalk			
	Ironstone			
	Total	**7 825**	**980**	**8 805**
	Total Aggregates	**9 043**	**1 232**	**10 276**
	Percent	88%	12%	100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region											
				Total sales	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	North Wales	Scotland	Europe
Sand and gravel	Land won	205														
	Marine dredged	1 011		2	2	0				0		0				
	Total	**1 216**		**2**	**2**	**0**				**0**		**0**				
Crushed rock	Limestone / dolomite	4 208		332	44	16	0	17	8	238	4	1	3	0	1	
	Igneous rock	748		829	56	28	3	3	10	528	130	2		69		
	Sandstone	857		852	281	57	170	101	15	212	8	8	0	0		
	Chalk															
	Ironstone															
	Total	**5 813**		**2 013**	**381**	**100**	**173**	**121**	**34**	**978**	**142**	**11**	**3**	**69**	**1**	
	Total Aggregates	**7 029**		**2 014**	**382**	**100**	**173**	**121**	**34**	**978**	**142**	**11**	**3**	**69**	**1**	

Table 4k Sales of aggregates and aggregate minerals by region in 2014: North Wales

Thousand tonnes

	Aggregate mineral	Aggregates	Non-aggregates	Total
Sand and gravel	Land won	897	3	900
	Marine dredged	30		30
	Total	**927**	**3**	**930**
Crushed rock	Limestone / dolomite	3 508	708	4 217
	Igneous rock	660		660
	Sandstone		0	0
	Chalk			
	Ironstone			
	Total	**4 168**	**708**	**4 876**
	Total Aggregates	**5 095**	**711**	**5 806**
	Percent	88%	12%	100%

Sales of aggregates within and outside home region

Thousand tonnes

	Aggregate mineral	Sales of aggregates within home region	Un-allocated sales	Sales of aggregates outside home region												
				Total sales	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	Scotland	Europe
Sand and gravel	Land won	739		158						18	140					
	Marine dredged	30														
	Total	**769**		**158**						**18**	**140**					
Crushed rock	Limestone / dolomite	1 252		2 226		38		12		29	2 077			1		69
	Igneous rock	605		54						0	54			0		
	Sandstone										0					
	Chalk										0					
	Ironstone										0					
	Total	**1 857**		**2 280**		**38**		**12**		**29**	**2 131**			**1**		**69**
	Total Aggregates	**2 626**		**2 438**		**38**		**12**		**47**	**2 271**			**1**		**69**

1. In addition 0.46 million tonnes of slate were used for aggregate.

Table 5a Consumption of primary aggregates by region in 2014: South West

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	349	2 841	3 190
	Marine dredged	53	586	638
	Total	**402**	**3 427**	**3 828**
Crushed rock	Limestone / dolomite	60	12 359	12 418
	Igneous rock	244	1 769	2 012
	Sandstone	283	453	736
	Chalk			
	Ironstone			
	Total	**587**	**14 580**	**15 167**
	Total Aggregates	**988**	**18 007**	**18 995**
	Percent	**5%**	**95%**	**100%**

Imports of primary aggregates by region: South West

Thousand tonnes

	Aggregate mineral	Total	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Outside England & Wales
Sand and gravel	Land won	349	284		0	3	52	10					
	Marine dredged	53	51								2		
	Total	**402**	**335**		**0**	**3**	**52**	**10**			**2**		
Crushed rock	Limestone / dolomite	60	14			1	1				44		
	Igneous rock	244				159	2			0	56		27
	Sandstone	283					1		1		281		
	Chalk												
	Ironstone												
	Total	**587**	**14**			**159**	**4**		**1**	**0**	**381**		**27**
	Total Aggregates	**988**	**350**			**162**	**56**	**10**	**1**	**0**	**382**		**27**

Table 5b Consumption of primary aggregates by region in 2014: South East

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	976	4 646	5 623
	Marine dredged	335	6 113	6 448
	Total	**1 311**	**10 759**	**12 071**
Crushed rock	Limestone / dolomite	3 457	1 502	4 959
	Igneous rock	1 863		1 863
	Sandstone	158		158
	Chalk		16	16
	Ironstone		130	130
	Total	**5 478**	**1 648**	**7 126**
	Total Aggregates	**6 790**	**12 407**	**19 197**
	Percent	**35%**	**65%**	**100%**

Imports of primary aggregates by region: South East

Thousand tonnes

	Aggregate mineral	Total	South West	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Outside England & Wales
Sand and gravel	Land won	976	324	131	408	89	9	15					
	Marine dredged	335	6	329	0						0		
	Total	**1 311**	**330**	**460**	**408**	**89**	**9**	**15**			**0**		
Crushed rock	Limestone / dolomite	3 457	3 277		11	29			0		16	38	87
	Igneous rock	1 863	206			775	3			0	28		851
	Sandstone	158	6				64		3		57		29
	Chalk												
	Ironstone												
	Total	**5 478**	**3 489**		**11**	**804**	**66**		**3**	**0**	**100**	**38**	**966**
	Total Aggregates	**6 790**	**3 819**	**460**	**419**	**893**	**75**	**15**	**3**	**0**	**100**	**38**	**966**

Table 5c Consumption of primary aggregates by region in 2014: London

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	1 590	245	1 834
	Marine dredged	456	3 392	3 849
	Total	**2 046**	**3 637**	**5 683**
Crushed rock	Limestone / dolomite	1 520		1 520
	Igneous rock	1 779		1 779
	Sandstone	591		591
	Chalk			
	Ironstone			
	Total	**3 890**		**3 890**
	Total Aggregates	**5 935**	**3 637**	**9 573**
	Percent	**62%**	**38%**	**100%**

Imports of primary aggregates by region: London

Thousand tonnes

	Aggregate mineral	Total	South West	South East	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Outside England & Wales
Sand and gravel	Land won	1 590	93	495	1 001			1					
	Marine dredged	456		387	70								
	Total	**2 046**	**93**	**882**	**1 070**			**1**					
Crushed rock	Limestone / dolomite	1 520	1 505	2	10	2					0		
	Igneous rock	1 779				888	0	0		1	3		886
	Sandstone	591					71			0	170		350
	Chalk												
	Ironstone												
	Total	**3 890**	**1 505**	**2**	**10**	**890**	**72**	**0**		**1**	**173**		**1 236**
	Total Aggregates	**5 935**	**1 598**	**884**	**1 080**	**890**	**72**	**1**		**1**	**173**		**1 236**

Table 5d Consumption of primary aggregates by region in 2014: East of England

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	530	9 435	9 965
	Marine dredged	1 031	280	1 311
	Total	**1 562**	**9 715**	**11 276**
Crushed rock	Limestone / dolomite	1 378	549	1 927
	Igneous rock	2 676		2 676
	Sandstone	154	60	214
	Chalk	24		24
	Ironstone			
	Total	**4 233**	**609**	**4 841**
	Total Aggregates	**5 794**	**10 323**	**16 118**
	Percent	**36%**	**64%**	**100%**

Imports of primary aggregates by region: East of England

Thousand tonnes

	Aggregate mineral	Total	South West	South East	London	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Outside England & Wales
Sand and gravel	Land won	530	0	61		405	56	8					
	Marine dredged	1 031		75	956								
	Total	**1 562**	**0**	**136**	**956**	**405**	**56**	**8**					
Crushed rock	Limestone / dolomite	1 378	1 085	5		253			5	0	17	12	
	Igneous rock	2 676	0			2 412	30	0		1	3		230
	Sandstone	154					51		2		101		
	Chalk	24							24				
	Ironstone												
	Total	**4 233**	**1 086**	**5**		**2 665**	**81**	**0**	**31**	**1**	**121**	**12**	**230**
	Total Aggregates	**5 794**	**1 086**	**141**	**956**	**3 070**	**138**	**8**	**31**	**1**	**121**	**12**	**230**

Table 5e Consumption of primary aggregates by region in 2014: East Midlands

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	1 173	4 505	5 678
	Marine dredged			
	Total	**1 173**	**4 505**	**5 678**
Crushed rock	Limestone / dolomite	538	4 951	5 489
	Igneous rock	117	6 196	6 313
	Sandstone	256	2	258
	Chalk			
	Ironstone	20	60	80
	Total	**931**	**11 210**	**12 141**
	Total Aggregates	**2 104**	**15 714**	**17 819**
	Percent	**12%**	**88%**	**100%**

Imports of primary aggregates by region: East Midlands

Thousand tonnes

	Aggregate mineral	Total	South West	South East	London	East of England	West Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Outside England & Wales
Sand and gravel	Land won	1 173	0	6		594	500	14	59				
	Marine dredged												
	Total	**1 173**	**0**	**6**		**594**	**500**	**14**	**59**				
Crushed rock	Limestone / dolomite	538	2	39		1		0	488		8		
	Igneous rock	117	3				73	15		15	10		
	Sandstone	256				0	193	34	14		15		
	Chalk												
	Ironstone	20		20									
	Total	**931**	**4**	**59**		**2**	**267**	**49**	**502**	**15**	**34**		
	Total Aggregates	**2 104**	**4**	**65**		**595**	**767**	**63**	**561**	**15**	**34**		

1. Limestone in the East Midlands includes small amounts of chalk to maintain confidentiality.

Table 5f Consumption of primary aggregates by region in 2014: West Midlands

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	633	5 117	5 750
	Marine dredged	4		4
	Total	**636**	**5 117**	**5 753**
Crushed rock	Limestone / dolomite	1 386	426	1 812
	Igneous rock	1 851	1 240	3 091
	Sandstone	220	1 146	1 366
	Chalk			
	Ironstone	20		20
	Total	**3 477**	**2 812**	**6 289**
	Total Aggregates	**4 113**	**7 929**	**12 043**
	Percent	**34%**	**66%**	**100%**

Imports of primary aggregates by region: West Midlands

Thousand tonnes

	Aggregate mineral	Total	South West	South East	London	East of England	East Midlands	North West	Yorkshire & Humber	North East	South Wales	North Wales	Outside England & Wales
Sand and gravel	Land won	633	11	5		16	480	102		0		18	
	Marine dredged	4	3					0			0		
	Total	**636**	**14**	**5**		**16**	**480**	**102**		**0**	**0**	**18**	
Crushed rock	Limestone / dolomite	1 386	285	37		1	786		11		238	29	
	Igneous rock	1 851	37				1 283	1		1	528	0	
	Sandstone	220	0				0	1	7		212		
	Chalk												
	Ironstone	20		20									
	Total	**3 477**	**322**	**57**		**1**	**2 069**	**3**	**18**	**1**	**978**	**29**	
	Total Aggregates	**4 113**	**337**	**63**		**17**	**2 549**	**105**	**18**	**1**	**978**	**47**	

Table 5g Consumption of primary aggregates by region in 2014: North West

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	239	1 760	2 000
	Marine dredged	0	87	87
	Total	**240**	**1 847**	**2 087**
Crushed rock	Limestone / dolomite	6 063	3 578	9 640
	Igneous rock	938	204	1 141
	Sandstone	740	1 754	2 494
	Chalk			
	Ironstone			
	Total	**7 740**	**5 535**	**13 276**
	Total Aggregates	**7 980**	**7 383**	**15 363**
	Percent	**52%**	**48%**	**100%**

Imports of primary aggregates by region: North West

Thousand tonnes

	Aggregate mineral	Total	South West	South East	London	East of England	East Midlands	West Midlands	Yorkshire & Humber	North East	South Wales	North Wales	Outside England & Wales
Sand and gravel	Land won	239	0	12		1	3	70	12			140	
	Marine dredged	0								0			
	Total	**240**	**0**	**12**		**1**	**3**	**70**	**12**	**0**		**140**	
Crushed rock	Limestone / dolomite	6 063					3 506	2	449	26	4	2 077	
	Igneous rock	938					325	11		18	130	54	400
	Sandstone	740					0	344	387		8		
	Chalk												
	Ironstone												
	Total	**7 740**					**3 831**	**357**	**836**	**44**	**142**	**2 131**	**400**
	Total Aggregates	**7 980**	**0**	**12**		**1**	**3 834**	**428**	**848**	**44**	**142**	**2 271**	**400**

Table 5h consumption of primary aggregates by region in 2014: Yorkshire and the Humber

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	1 146	2 103	3 249
	Marine dredged	8		8
	Total	**1 154**	**2 103**	**3 257**
Crushed rock	Limestone / dolomite	852	6 340	7 191
	Igneous rock	838		838
	Sandstone	75	878	953
	Chalk		25	25
	Ironstone			
	Total	**1 765**	**7 243**	**9 007**
	Total Aggregates	**2 919**	**9 346**	**12 265**
	Percent	**24%**	**76%**	**100%**

Imports of primary aggregates by region: Yorkshire and the Humber

Thousand tonnes

	Aggregate mineral	Total	South West	South East	London	East of England	East Midlands	West Midlands	North West	North East	South Wales	North Wales	Outside England & Wales
Sand and gravel	Land won	1 146	1	3		1	850	49	118	125			
	Marine dredged	8			0					8	0		
	Total	**1 154**	**1**	**3**	**0**	**1**	**850**	**49**	**118**	**133**	**0**		
Crushed rock	Limestone / dolomite	852	0				423		78	349	1		
	Igneous rock	838	1				551	0	29	37	2		218
	Sandstone	75						53	15		8		
	Chalk												
	Ironstone												
	Total	**1 765**	**1**				**974**	**53**	**122**	**386**	**11**		**218**
	Total Aggregates	**2 919**	**1**	**3**		**1**	**1 825**	**101**	**240**	**519**	**11**		**218**

Table 5i Consumption of primary aggregates by region in 2014: North East

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	351	746	1 097
	Marine dredged		528	528
	Total	**351**	**1 274**	**1 625**
Crushed rock	Limestone / dolomite	435	2 506	2 940
	Igneous rock	377	1 150	1 527
	Sandstone	24	3	27
	Chalk			
	Ironstone			
	Total	**835**	**3 658**	**4 494**
	Total Aggregates	**1 186**	**4 932**	**6 118**
	Percent	**19%**	**81%**	**100%**

Imports of primary aggregates by region: North East

Thousand tonnes

	Aggregate mineral	Total	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	South Wales	North Wales	Outside England & Wales
Sand and gravel	Land won	351				0		1	16	334	0		
	Marine dredged												
	Total	**351**				**0**		**1**	**16**	**334**	**0**		
Crushed rock	Limestone / dolomite	435	0			0	1		48	382	3		
	Igneous rock	377					153		75		0		148
	Sandstone	24							10	14			
	Chalk												
	Ironstone												
	Total	**835**	**0**			**0**	**154**		**133**	**396**	**3**		**148**
	Total Aggregates	**1 186**	**0**			**0**	**154**	**1**	**149**	**730**	**3**		**148**

Table 5j Consumption of primary aggregates by region in 2014: South Wales

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	42	205	247
	Marine dredged	0	1 011	1 011
	Total	**42**	**1 216**	**1 258**
Crushed rock	Limestone / dolomite	56	4 208	4 265
	Igneous rock	19	748	767
	Sandstone	4	857	861
	Chalk			
	Ironstone			
	Total	**79**	**5 813**	**5 892**
	Total Aggregates	**121**	**7 029**	**7 150**
	Percent	**2%**	**98%**	**100%**

Imports of primary aggregates by region: South Wales

Thousand tonnes

	Aggregate mineral	Total	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	North Wales	Outside England & Wales
Sand and gravel	Land won	42	7	1		0		20	15				
	Marine dredged	0	0	0									
	Total	**42**	**7**	**1**		**0**		**20**	**15**				
Crushed rock	Limestone / dolomite	56	45				1	2				1	7
	Igneous rock	19					19				0	0	
	Sandstone	4					0	1		3			
	Chalk												
	Ironstone												
	Total	**79**	**45**				**19**	**3**		**3**	**0**	**1**	**7**
	Total Aggregates	**121**	**52**	**1**		**0**	**19**	**23**	**15**	**3**	**0**	**1**	**7**

Table 5k Consumption of primary aggregates by region in 2014: North Wales

Thousand tonnes

	Aggregate mineral	Imports	Sales within Region	Total consumption
Sand and gravel	Land won	23	739	762
	Marine dredged	22	30	52
	Total	**46**	**769**	**815**
Crushed rock	Limestone / dolomite	38	1 252	1 290
	Igneous rock	74	605	679
	Sandstone	15		15
	Chalk			
	Ironstone			
	Total	**126**	**1 857**	**1 983**
	Total Aggregates	**172**	**2 626**	**2 798**
	Percent	**6%**	**94%**	**100%**

Imports of primary aggregates by region: North Wales

Thousand tonnes

	Aggregate mineral	Total	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	South Wales	Outside England & Wales
Sand and gravel	Land won	23				0		4	19	0			
	Marine dredged	22	0						22				
	Total	**46**	**0**			**0**		**4**	**41**	**0**			
Crushed rock	Limestone / dolomite	38	26				5	6		0			
	Igneous rock	74					2	3				69	
	Sandstone	15						15					
	Chalk												
	Ironstone												
	Total	**126**	**26**				**7**	**24**		**0**		**69**	
	Total Aggregates	**172**	**27**			**0**	**7**	**28**	**41**	**0**		**69**	

Table 6 Summary of sales of primary aggregates (sand & gravel and crushed rock) by major end use in 2014

Thousand tonnes

Aggregate Use	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Coarse/fine concrete aggregate	5 429	8 310	3 181	6 582	8 381	3 572	1 637	4 168	1 550	**42 808**	1 651	1 452	**3 103**	**45 911**
Building/asphalting sand	763	1 565	95	1 669	603	577	874	292	407	**6 845**	687	112	**798**	**7 644**
Roadstone/gravel coated for asphalt	1 567	40	7	103	5 473	1 801	800	1 565	579	**11 935**	2 238	390	**2 628**	**14 562**
Roadstone, uncoated	3 414	182			5 998	772	598	1 738	1 031	**13 734**	736	944	**1 680**	**15 414**
Other screened and graded aggregates	10 119	2 098	1 440	1 103	3 905	1 230	1 174	2 106	862	**24 037**	1 816	1 160	**2 976**	**27 013**
Railway ballast	1				2 044	7	151		5	**2 207**		12	**12**	**2 218**
Armourstone and gabion stone	81	51			185	9	189	45	67	**628**	23	27	**51**	**678**
Other construction uses, including fill	3 358	1 495	92	1 706	3 610	1 426	1 549	1 635	1 074	**15 944**	1 742	999	**2 741**	**18 685**
Undifferentiated aggregate use	630	537	240	1 404	209	258	1 447			**4 726**	150	0	**150**	**4 876**
Total Sales	**25 362**	**14 279**	**5 054**	**12 568**	**30 407**	**9 651**	**8 419**	**11 549**	**5 575**	**122 864**	**9 043**	**5 095**	**14 138**	**137 002**

1. Sales include from land-based quarries and landings of marine-dredged sand & gravel, but not imports of aggregates from outside England and Wales.
2. Coated roadstone also includes material exported from the quarry site for coating with bituminous binder.
3. Roadstone uncoated includes rock chippings for surfacing dressing.

Table 7 Summary of sales of land-won primary aggregates by selected environmental designation in 2014

Thousand tonnes

	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Sand and gravel														
All sites	3 278	5 858	376	11 586	6 600	5 877	2 461	2 509	873	**39 418**	205	897	**1 102**	**40 520**
National Park		91								**91**	120		**120**	**210**
AONB	529	494		79		254				**1 356**				**1 356**
SSSI	1 000	738		592	218	434		204	433	**3 619**	2		**2**	**3 621**
SPA and SAC	999	709		173					433	**2 314**	2		**2**	**2 317**
Green Belt	287	2 496		1 210		1 383	1 192		7	**6 574**				**6 574**
Crushed rock														
All sites	21 439	1 795		632	23 806	3 775	5 849	9 040	4 165	**70 501**	7 825	4 168	**11 994**	**82 495**
National Park	c				2 725		561	2 706	c	**6 798**	863		**863**	**7 661**
AONB	2 585	30				333	94	583	361	**3 986**		3	**3**	**3 989**
SSSI	3 453	120		76	11 730	333	804	3 267	2 243	**22 025**	1 907	1 962	**3 869**	**25 894**
SPA and SAC	736				797		804	1 169	851	**4 357**		1 962	**1 962**	**6 319**
Green Belt	1 327	289					232	2 947	164	**4 958**				**4 958**

1. From land-based aggregate quarries only.

2. ‘All sites’ includes sales from all land-based mineral workings producing primary aggregates in 2014.

3. National Parks include the New Forest, the South Downs and The Broads.

4. Designations are not mutually exclusive, e.g. SSSIs may overlap with others, such as National Parks and AONBs. Special Areas of Conservation (SAC) and Special Protection Areas (SPA) are also SSSIs. They are sub-sets of SSSIs. Some designations, notably SSSIs, may only coincide with a small part of an extant planning permission. However, the total sales for the mineral working are recorded even though there may be no extraction within the designation. The degree of overlap, and the actual or potential impacts of mineral extraction on the conservation interest of the site will vary and are not reflected in the figures.

5. Green Belt is a planning policy designation.

Table 8 Sales of primary aggregates by principal transport method in 2014

Thousand tonnes

Region	Road			Rail			Water			Total
	Sand and gravel	Crushed rock	Total	Sand and gravel	Crushed rock	Total	Sand and gravel	Crushed rock	Total	
South West	3 834	15 775	19 609	93	5 499	5 592		116	116	**25 316**
South East	11 644	2 919	14 563	559	323	881	281	20	301	**15 745**
London	4 563	666	5 229	491		491				**5 720**
East of England	11 727	963	12 691	203		203				**12 894**
East Midlands	6 600	18 643	25 243		5 324	5 324				**30 567**
West Midlands	5 877	3 773	9 649		0	0				**9 650**
North West	2 569	6 248	8 817	0	c	c	1		1	**c**
Yorkshire & the Humber	2 509	8 506	11 016		c	c				**c**
North East	1 410	4 257	5 666					57	57	**5 724**
England	**50 733**	**61 749**	**112 483**	**1 346**	**11 897**	**13 244**	**282**	**193**	**475**	**126 202**
South Wales	1 218	7 567	8 785		300	300				**9 085**
North Wales	927	4 138	5 065							**5 065**
Wales	**2 145**	**11 705**	**13 850**		**300**	**300**				**14 149**
England and Wales	**52 878**	**73 455**	**126 333**	**1 346**	**12 197**	**13 543**	**282**	**193**	**475**	**140 351**

1. Crushed rock imported from outside England and Wales as distributed from wharves is included.
2. Marine sand and gravel as distributed from wharves is included.
3. Figures are based on sales by destination. Because of unallocated sales of unknown destination and small amounts for non-aggregate use being included, there will be differences in some regions compared with product sales.
4. 94.1% of total sales by principal transport method is based on figures supplied by site operators. The remaining 5.9% is based on estimates made by Mineral Planning Authorities.

Table 9a Sales of primary aggregates by MPA and principal destination sub-region in 2014: South West

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
South West	Bristol City Council	Avon				274	63%				
		South West				96	22%				
		Elsewhere				9	2%				
		Unallocated				54	12%				
	MPA Total					***433***		***67%***			
	Cornwall County Council[a]	Cornwall							801	66%	
		South West							416	34%	
		Elsewhere							c	c	
	MPA Total								***1 218***		***6%***
	Dartmoor National Park[b]	Devon							c	98%	
		South West							c	2%	
	MPA Total								***c***		***c***
	Devon County Council[b]	Devon	474	89%		35	76%		2 134	90%	
		South West	57	11%		11	24%		223	10%	
		Elsewhere	1	0%					6	0%	
	MPA Total		***532***		***16%***	***46***		***7%***	***2 362***		***11%***
	Dorset County Council	Dorset	648	40%		67	72%		172	62%	
		South West	754	47%		26	28%		102	37%	
		Elsewhere	202	13%		0	0%		5	2%	
	MPA Total		***1 605***		***49%***	***93***		***14%***	***279***		***1%***

a. Cornwall South West crushed rock includes a small amount of Elsewhere.

b. Devon also includes crushed rock for Dartmoor National Park.

Table 9a Sales of primary aggregates by MPA and principal destination sub-region in 2014: South West

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
South West continued	Gloucestershire County Council	Gloucestershire	328	76%					1 220	81%	
		South West	85	20%					26	2%	
		Elsewhere	17	4%					264	18%	
		Unallocated							0	0%	
	MPA Total		***430***		***13%***				***1 510***		***7%***
	North Somerset Council	Avon							1 020	77%	
		South West							215	16%	
		Elsewhere							91	7%	
	MPA Total								***1 327***		***6%***
	Plymouth City Council	Devon							400	82%	
		South West							65	13%	
		Elsewhere							26	5%	
	MPA Total								***491***		***2%***
	Somerset County Council	Somerset				76	98%		4 328	35%	
		South West				1	2%		1 772	14%	
		South East							3 151	26%	
		London							1 502	12%	
		East of England							1 084	9%	
		Elsewhere				0	0%		120	1%	
		Unallocated							312	3%	
	MPA Total					***77***		***12%***	***12 269***		***57%***

Table 9a Sales of primary aggregates by MPA and principal destination sub-region in 2014: South West

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
South West continued	South Gloucestershire Council	Avon							69	4%	
		South West							1 676	90%	
		Elsewhere							127	7%	
	MPA Total								***1 872***		***9%***
	Wiltshire County Council	Wiltshire	408	57%					23	52%	
		South West	87	12%					22	48%	
		Elsewhere	216	30%							
	MPA Total		***711***		***22%***				***45***		***0%***
AWP Total			***3 278***		***100%***	***649***		***100%***	***21 372***		***100%***

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

Table 9b Sales of primary aggregates by MPA and principal destination sub-region in 2014: South East

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
South East	Berkshire	Berkshire	248	24%							
		South East	548	52%							
		Elsewhere	255	24%							
		Unallocated	0	0%							
	MPA Total		***1 051***		***18%***						
	Buckinghamshire County Council	Buckinghamshire and Milton Keynes	277	41%							
		South East	340	50%							
		Elsewhere	66	10%							
	MPA Total		***684***		***12%***						
	East Sussex C. Council	East Sussex and Brighton & Hove	221	50%		*7*	*40%*				
		South East	221	50%		10	60%				
	MPA Total		***442***		***8%***	***16***		***0%***			
	Hampshire County Council	Hampshire and the Isle of Wight	598	68%		992	73%				
		South East	127	14%		313	23%				
		Elsewhere	156	18%		51	4%				
		Unallocated	0	0%							
	MPA Total		***882***		***15%***	***1 356***		***20%***			
	Isle of Wight Council	Hampshire and the Isle of Wight	69	100%		103	100%		16	100%	
	MPA Total		***69***		***1%***	***103***		***2%***	***16***		***1%***
	Kent County Council	Kent and Medway	450	80%		1 243	64%		655	85%	
		South East	84	15%		255	13%		108	14%	
		Elsewhere	31	5%		440	23%		5	1%	
	MPA Total		***565***		***10%***	***1 938***		***29%***	***767***		***43%***

.

Table 9b Sales of primary aggregates by MPA and principal destination sub-region in 2014: South East

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
South East continued	Medway Council	Kent and Medway				1 457	92%				
		South East				107	7%				
		Elsewhere				21	1%				
	MPA Total					***1 586***		***24%***			
	Milton Keynes Council	Buckinghamshire and Milton Keynes	78	97%							
		Elsewhere	2	3%							
	MPA Total		***81***		***1%***						
	Oxfordshire County Council	Oxfordshire	648	75%					659	66%	
		South East	111	13%					210	21%	
		Elsewhere	110	13%					133	13%	
		Unallocated							4	0%	
	MPA Total		***869***		***15%***				***1 006***		***56%***
	Surrey County Council	Surrey	381	39%							
		South East	41	4%							
		Elsewhere	212	22%							
		Unallocated	344	35%					6	100%	
	MPA Total		***978***		***17%***				***6***		***0%***
	West Sussex County Council[(a)]	West Sussex	41	17%		247	15%				
		South East	163	68%		1 380	85%				
		Elsewhere	35	15%							
	MPA Total		239		4%	1 627		25%			
AWP Total			**5 858**		**100%**	**6 626**		**100%**	**1 795**		**100%**

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

a. West Sussex also includes land-won sand and gravel for the South Downs National Park, sales from which were to the South East.

Table 9c Sales of primary aggregates by MPA and principal destination sub-region in 2014: London

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
London	London[(a)]	London	245	65%		3 392	73%				
		Elsewhere	131	35%		1 286	27%				
	MPA Total		***376***		***100%***	***4 678***		***100%***			
AWP Total			**376**		**100%**	**4 678**		**100%**			

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

a. East and West London have been combined to maintain confidentiality.

Table 9d Sales of primary aggregates by MPA and principal destination sub-region in 2014: East of England

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
East of England	Bedford Borough Council[a]	Bedfordshire	c	43%							
		East of England	c	20%							
		Elsewhere	c	37%							
	MPA Total		***c***		***c***						
	Cambridgeshire County Council[b]	Cambridgeshire and Peterborough	1 507	58%					8	14%	
		East of England	455	17%					26	46%	
		Elsewhere	643	25%					23	40%	
	MPA Total		***2 605***		***22%***				***57***		***9%***
	Central Bedfordshire Council[a]	Bedfordshire	777	56%							
		East of England	233	17%							
		Elsewhere	258	19%							
		Unallocated	120	8%							
	MPA Total		***1 388***		***12%***						
	Essex County Council	Essex, Southend and Thurrock	3 021	69%							
		East of England	472	11%							
		Elsewhere	866	20%							
		Unallocated	6	0%							
	MPA Total		***4 363***		***38%***						
	Hertfordshire C. Council	Hertfordshire	692	57%							
		East of England	265	22%							
		Elsewhere	252	21%							
	MPA Total		***1 210***		***10%***						

a. Central Bedfordshire also includes land-won sand and gravel for Bedford Borough.

b. Cambridgeshire also includes land-won sand and gravel for Peterborough.

Table 9d Sales of primary aggregates by MPA and principal destination sub-region in 2014: East of England

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
East of England continued	Norfolk County Council	Norfolk	1 185	87%					58	96%	
		East of England	181	13%					2	3%	
		Elsewhere	2	0%					0	1%	
	MPA Total		***1 368***		***12%***				***60***		***10%***
	Peterborough[(b)]	Cambridgeshire and Peterborough	c	67%					514	100%	
		East of England	c	3%							
		Elsewhere	c	30%							
	MPA Total		***c***		***c***				***514***		***81%***
	Suffolk County Council	Suffolk	455	70%		68	100%				
		East of England	193	30%							
	MPA Total		***648***		***6%***	***68***		***20%***			
	Thurrock Borough Council	Essex, Southend and Thurrock				212	75%				
		Elsewhere				70	25%				
	MPA Total					***282***		***80%***			
AWP Total			**11 581**		**100%**	**350**		**100%**	**632**		**100%**

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

Table 9e Sales of primary aggregates by MPA and principal destination sub-region in 2014: East Midlands

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
East Midlands	Derbyshire County Council	Derbyshire & Peak District National Park	269	38%					1 694	27%	
		East Midlands	223	31%					326	5%	
		East of England							114	2%	
		West Midlands							268	4%	
		North West							2 262	36%	
		Yorkshire & the Humber							399	6%	
		Elsewhere	164	23%					12	0%	
		Unallocated	55	8%					1 184	19%	
	MPA Total		***711***		***11%***				***6 259***		***26%***
	Leicestershire County Council	Leicestershire & Rutland	837	58%					5 428	38%	
		East Midlands	311	21%					1 879	13%	
		South East							792	6%	
		London							890	6%	
		East of England							2 447	17%	
		West Midlands							1 494	11%	
		North West							325	2%	
		Yorkshire & the Humber							552	4%	
		Elsewhere	300	21%					338	2%	
	MPA Total		***1 448***		***22%***				***14 145***		***59%***
	Lincolnshire County Council	Lincolnshire	826	38%					373	99%	
		East Midlands	842	39%					2	1%	
		Elsewhere	481	22%					2	0%	
	MPA Total		***2 149***		***33%***				***377***		***2%***

Table 9e Sales of primary aggregates by MPA and principal destination sub-region in 2014: East Midlands

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
East Midlands continued	Northamptonshire County Council	Northamptonshire	350	67%					142	58%	
		East Midlands	3	1%					73	30%	
		Elsewhere	168	32%					31	13%	
	MPA Total		***521***		***8%***				***246***		***1%***
	Nottinghamshire County Council	Nottinghamshire	499	28%							
		East Midlands	344	19%							
		Elsewhere	718	41%							
		Unallocated	210	12%							
	MPA Total		***1 771***		***27%***						
	Peak District National Park	Derbyshire & Peak District National Park							1 002	37%	
		East Midlands							128	5%	
		West Midlands							306	11%	
		North West							1 244	46%	
		Elsewhere							45	2%	
	MPA Total								***2 725***		***11%***
	Rutland CC DC	Leicestershire & Rutland							60	28%	
		East Midlands							102	47%	
		Elsewhere							53	25%	
	MPA Total								***215***		***1%***
AWP Total			**6 600**		**100%**				**23 967**		**100%**

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

Table 9f Sales of primary aggregates by MPA and principal destination sub-region in 2014: West Midlands

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
West Midlands	Herefordshire Council	Herefordshire	69	71%					167	51%	
		West Midlands	24	24%					119	36%	
		Elsewhere	4	5%					7	2%	
		Unallocated							33	10%	
	MPA Total		***98***		***2%***				***326***		***9%***
	Shropshire County Council	Shropshire	232	37%					1 371	45%	
		West Midlands	355	57%					824	27%	
		Elsewhere	39	6%					885	29%	
	MPA Total		***627***		***11%***				***3 080***		***82%***
	Solihull Metropolitan Borough Council	Remainder of West Midlands	281	56%							
		West Midlands	212	42%							
		Elsewhere	6	1%							
	MPA Total		***499***		***8%***						
	Staffordshire County Council	Staffordshire	1 996	48%					80	98%	
		West Midlands	1 485	36%							
		Elsewhere	662	16%					2	2%	
	MPA Total		***4 143***		***70%***				***82***		***2%***

Table 9f Sales of primary aggregates by MPA and principal destination sub-region in 2014: West Midlands

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
West Midlands continued	Warwickshire County Council	Warwickshire	193	69%					205	72%	
		West Midlands	87	31%					47	16%	
		Elsewhere							34	12%	
	MPA Total		***280***		***5%***				***285***		***8%***
	Worcestershire County Council	Worcestershire	51	22%							
		West Midlands	133	57%							
		Elsewhere	47	21%							
	MPA Total		***231***		***4%***						
AWP Total			**5 877**		**100%**				**3 773**		**100%**

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

Table 9g Sales of primary aggregates by MPA and principal destination sub-region in 2014: North West

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
North West	Cheshire East Council	Cheshire (Cheshire West & Chester and Cheshire East)	66	11%							
		North West	164	28%					c	100%	
		Elsewhere	194	33%							
		Unallocated	169	29%							
	MPA Total		***593***		***24%***				***c***		***c***
	Cheshire West & Chester Council	Cheshire (Cheshire West & Chester and Cheshire East)	211	51%							
		North West	107	26%							
		Elsewhere	98	24%							
	MPA Total		***417***		***17%***						
	Cumbria County Council	Cumbria	518	77%					1 311	51%	
		North West	62	9%					952	37%	
		Elsewhere	95	14%					292	11%	
	MPA Total		***675***		***27%***				***2 555***		***44%***
	Greater Manchester, Merseyside, Halton & Warrington	Greater Manchester, Merseyside, Halton & Warrington	63	24%					231	49%	
		North West	191	72%		87	80%		241	51%	
		Elsewhere	12	4%		22	20%				
	MPA Total		***267***		***11%***	***109***		***100%***	***472***		***8%***

Table 9g Wales of primary aggregates by MPA and principal destination sub-region in 2014: North West

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
North West continued	Lancashire County Council	Lancashire	188	37%					2 028	72%	
		North West	190	37%					771	27%	
		Elsewhere							21	1%	
		Unallocated	132	26%							
	MPA Total		***509***		***21%***				***2 820***		***48%***
AWP Total			**2 461**		**100%**	**109**		**100%**	**5 848**		**100%**

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

Table 9h Sales of primary aggregates by MPA and principal destination sub-region in 2014: Yorkshire and the Humber

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
Yorkshire & the Humber	Bradford M. B. Council	West Yorkshire							19	100%	
	MPA Total								***19***		***0%***
	Calderdale Metropolitan Borough Council	West Yorkshire							c	100%	
	MPA Total								***c***		***c***
	Doncaster Metropolitan Borough Council	South Yorkshire	9	6%					1 153	51%	
		Yorkshire & the Humber	117	87%					741	33%	
		Elsewhere	9	7%					356	16%	
	MPA Total		***135***		***5%***				***2 250***		***25%***
	East Riding of Yorkshire Council[(a)]	East Riding, North Lincolnshire and North East Lincolnshire	119	19%					c	51%	
		Yorkshire & the Humber	462	72%							
		Elsewhere	58	9%					c	49%	
	MPA Total		***639***		***25%***				***c***		***c***
	Kirklees Metropolitan Borough Council	West Yorkshire	17	100%					137	100%	
	MPA Total		***17***		***1%***				***137***		***2%***
	Leeds City Council	West Yorkshire							292	85%	
		Yorkshire & the Humber							50	15%	
	MPA Total								***343***		***4%***
	North Lincolnshire Council[(a)]	Elsewhere	c	100%					95	100%	
		Unallocated	c	0%							
	MPA Total		***c***		***c***				***95***		***1%***

a. East Riding of Yorkshire also includes land-won sand and gravel for North Lincolnshire.

Table 9h Sales of primary aggregates by MPA and principal destination sub-region in 2014: Yorkshire and the Humber

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
Yorkshire & the Humber continued	North Yorkshire County Council	North Yorks, Yorkshire Dales and North York Moors National Parks	909	53%					1 832	55%	
		Yorkshire & the Humber	470	27%					1 159	35%	
		Elsewhere	339	20%					360	11%	
	MPA Total		***1 719***		***68%***				***3 350***		***37%***
	Wakefield M. B. Council	West Yorkshire							c	100%	
	MPA Total								***c***		***c***
	Yorkshire Dales National Park	North Yorks, Yorkshire Dales and North York Moors National Parks							443	16%	
		Yorkshire & the Humber							1 300	48%	
		Elsewhere							963	36%	
	MPA Total								***2 706***		***30%***
AWP Total			**2 509**		**100%**			**100%**	**9 040**		**100%**

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

Table 9i Sales of primary aggregates by MPA and principal destination sub-region in 2014: North East

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
North East	Durham County Council	Durham	39	14%					1 102	41%	
		North East	212	77%					1 136	43%	
		Elsewhere	25	9%					417	16%	
	MPA Total		***276***		***32%***				***2 655***		***64%***
	Hartlepool Borough Council	Tees Valley							48	76%	
		North East							12	20%	
		Elsewhere							2	4%	
	MPA Total								***63***		***2%***
	Middlesbrough Borough Council	Tees Valley				194	93%				
		North East				15	7%				
		Elsewhere				0	0%				
	MPA Total					***209***		***39%***			
	Tyne and Wear	Tyne and Wear	c	16%		109	35%		147	90%	
		North East	c	42%		190	62%		16	10%	
		Elsewhere	c	42%		9	3%				
	MPA Total		***c***		***c***	***308***		***57%***	***164***		***4%***
	Northumberland County Council[(a)]	Northumberland and the National Park	84	23%					680	58%	
		North East	274	76%		20	100%		407	35%	
		Elsewhere	3	1%					88	7%	
	MPA Total		***361***		***41%***	***20***		***4%***	***1 174***		***28%***

a. Northumberland also includes crushed rock for Northumberland National Park.

Table 9i Sales of primary aggregates by MPA and principal destination sub-region in 2014: North East

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
North East continued	Northumberland National Park[(a)]	Northumberland and the National Park							c	45%	
		North East							c	10%	
		Elsewhere							c	45%	
	MPA Total								***c***		***c***
	Stockton-on-Tees Borough Council	Tees Valley									
		North East									
		Elsewhere									
		Unallocated									
	MPA Total										
AWP Total			**873**		**100%**	**537**		**100%**	**4 165**		**100%**

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

Table 9j Sales of primary aggregates by MPA and principal destination sub-region in 2014: South Wales

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
South Wales	Blaenau Gwent	South Wales							c	100%	
	MPA Total								**c**		**c**
	Brecon Beacons National Park	Remainder of South Wales							16	2%	
		South Wales							693	98%	
		Elsewhere							0	0%	
	MPA Total								**709**		**9%**
	Bridgend	South East Wales							c	100%	
		South Wales							c	0%	
	MPA Total								***c***		***c***
	Caerphilly	South East Wales							19	54%	
		Elsewhere							16	46%	
	MPA Total								***35***		***0%***
	Cardiff County Council	South East Wales				245	97%		423	39%	
		South Wales				6	2%		657	61%	
		Elsewhere				2	1%		1	0%	
	MPA Total					***253***		***25%***	***1 081***		***14%***
	Carmarthenshire	Remainder of South Wales				53	50%		197	23%	
		South Wales	2	100%		53	50%		673	77%	
	MPA Total		***2***		***1%***	***106***		***10%***	***870***		***11%***

Table 9j Sales of primary aggregates by MPA and principal destination sub-region in 2014: South Wales

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
South Wales continued	Ceredigion	Remainder of South Wales	23	28%					112	100%	
		South Wales	60	72%					0	0%	
		Elsewhere							0	0%	
	MPA Total		***83***		***40%***				***112***		***1%***
	Monmouthshire[a]	South East Wales				c	100%				
	MPA Total					***c***		***c***			
	Neath Port Talbot	South East Wales							35	11%	
		South Wales							187	57%	
		Elsewhere							107	32%	
	MPA Total								***330***		***4%***
	Newport[a]	South East Wales				516	100%				
		South Wales				0	0%				
		Elsewhere				0	0%				
	MPA Total					***516***		***51%***			
	Pembrokeshire (including Pembrokeshire Coast National Park)	Remainder of South Wales	120	100%		13	100%		322	66%	
		South Wales				0	0%		164	34%	
		Elsewhere							1	0%	
	MPA Total		***120***		***58%***	***13***		***1%***	***487***		***2%***

a. Newport also contains marine sand and gravel for Monmouthshire.

Table 9j Sales of primary aggregates by MPA and principal destination sub-region in 2014: South Wales

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
South Wales continued	Powys	Remainder of South Wales							659	26%	
		South Wales							168	6%	
		West Midlands									
		North West									
		North Wales									
		Elsewhere							1 753	68%	
	MPA Total								***2 580***		***33%***
	Rhondda, Cynon, Taf (Taff)	South East Wales							528	80%	
		South Wales							0	0%	
		Elsewhere							134	20%	
	MPA Total								***662***		***8%***
	Swansea (City of)	South East Wales				86	68%				
		South Wales				39	31%				
		Elsewhere				0	0%				
	MPA Total					***125***		***12%***			
	Vale of Glamorgan	South East Wales							223	65%	
		South Wales							120	35%	
	MPA Total								***343***		***4%***
AWP Total			**205**		**100%**	**1 013**		**100%**	**7 825**		**100%**

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

Table 9k Sales of primary aggregates by MPA and principal destination sub-region in 2014: North Wales

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
North Wales	Conwy (Aberconwy & Colwyn)	North East Wales							185	25%	
		North Wales							299	40%	
		Elsewhere							256	35%	
	MPA Total								***739***		***18%***
	Flintshire	North East Wales	c	1%					987	33%	
		North Wales	c	94%					0	0%	
		North West							1 944	66%	
		Elsewhere	c	5%					27	1%	
	MPA Total		***c***		***c***				***2 958***		***71%***
	Gwynedd	North West Wales	125	59%					c	77%	
		North Wales	80	38%		30	100%		c	21%	
		Elsewhere	5	2%					c	3%	
	MPA Total		***210***		***23%***	***30***		***100%***	***c***		***c***
	Isle of Anglesey[(a)]	North West Wales							310	70%	
		North Wales							76	17%	
		Elsewhere							54	12%	
	MPA Total								***441***		***11%***

a. Isle of Anglesey includes crushed rock for Gwynedd.

Table 9k Sales of primary aggregates by MPA and principal destination sub-region in 2014: North Wales

Thousand tonnes

Source Region	Source MPA	Destination	Land-won sand and gravel	MPA %	AWP %	Marine sand and gravel	MPA %	AWP %	Crushed rock	MPA %	AWP %
North Wales continued	Wrexham[(b)]	North East Wales	348	51%							
		North Wales	186	27%							
		Elsewhere	152	22%							
	MPA Total		***687***		***77%***						
AWP Total			**897**		**100%**	**30**		**100%**	**4 138**		**100%**

1. For aggregate use only. Regional totals may not agree with those in Table 2a and Table 4 due to under-reporting of destination data or because small amounts for non-aggregate use have been included for a few MPAs.
2. Sales of primary aggregates include sales from land-based quarries and sales of marine-dredged sand and gravel, but not imports of crushed rock from outside England and Wales.
3. In order to summarise the large amount of data available, this table only shows, for every MPA, sales by home sub-region and remaining sales in home region (excluding home sub-region). Unless otherwise stated, all other allocated sales to **other** regions are included under 'Elsewhere.' For those MPAs where this figure exceeds 1 million tonnes, the main destination regions are also listed. Unallocated sales of unknown destination are also shown.

b. Wrexham includes land-won sand and gravel for Flintshire.

Table 10 Imports of primary aggregates by sub-region in 2014

Thousand tonnes

Region	Sub-region	Land-won sand and gravel	Marine sand and gravel	Total sand and gravel	Crushed rock	Total primary aggregates
South West	West of England (Avon)	124	3	127	218	346
	Cornwall and Isles of Scilly	2	11	13	83	96
	Devon, Plymouth, Torbay and Dartmoor Nat. Park	84	1	85	524	610
	Dorset	84	1	85	260	345
	Gloucestershire	215	28	243	1 429	1 672
	Somerset	448	3	450	474	924
	Wiltshire	131	74	205	1 116	1 321
	Unknown in the South West	243	67	310	896	1 206
	Total	**1 332**	**188**	**1 519**	**5 001**	**6 520**
South East	Berkshire	353	152	505	1 161	1 666
	Buckinghamshire and Milton Keynes	433		433	486	919
	East Sussex and Brighton and Hove	42	650	692	280	972
	Hampshire and the Isle of Wight	215	45	260	895	1 155
	Kent and Medway	248	225	473	1 094	1 566
	Oxfordshire	111	6	117	787	904
	Surrey	382	237	619	304	923
	West Sussex	58	94	152	761	912
	Unknown in the South East	769	992	1 761	28	1 789
	Total	**2 612**	**2 400**	**5 012**	**5 795**	**10 807**
London	East London	828	430	1 258	679	1 937
	West London	633	1 140	1 773	2 029	3 802
	Unknown in Greater London	128	461	589	1 182	1 771
	Total	**1 590**	**2 030**	**3 620**	**3 890**	**7 510**
East of England	Bedfordshire (Central Bedfordshire, Bedford and Luton)	497	24	521	584	1 105
	Cambridgeshire and Peterborough	553	4	557	878	1 435
	Essex, Southend and Thurrock	113	984	1 097	1 525	2 621
	Hertfordshire	434	19	454	591	1 044
	Norfolk	155		155	250	406
	Suffolk	391	0	392	395	787
	Unknown in the East of England	184		184	38	222
	Total	**2 329**	**1 031**	**3 360**	**4 261**	**7 621**
East Midlands	Derbyshire and Peak District National Park	356		356	541	896
	Leicestershire and Rutland	573		573	278	850

Table 10 Imports of primary aggregates by sub-region in 2014

Thousand tonnes

Region	Sub-region	Land-won sand and gravel	Marine sand and gravel	Total sand and gravel	Crushed rock	Total primary aggregates
East Midlands continued	Lincolnshire	163		163	446	609
	Northamptonshire	757		757	900	1 658
	Nottinghamshire	533		533	1 264	1 797
	Unknown in the East Midlands	513		513	14	527
	Total	**2 895**		**2 895**	**3 441**	**6 337**
West Midlands	Herefordshire	83	1	85	533	618
	Remainder of West Midlands	1 065		1 065	1 053	2 118
	Shropshire and Telford and Wrekin	111		111	654	765
	Staffordshire	106	0	106	960	1 066
	Warwickshire	282	0	282	659	941
	Worcestershire	146	2	148	540	689
	Unknown in the West Midlands Region	1 135		1 135	66	1 201
	Total	**2 929**	**4**	**2 932**	**4 466**	**7 398**
North West	Cheshire (Cheshire West & Chester and Cheshire East)	135	36	171	2 059	2 230
	Cumbria and Lake District National Park	3		3	209	212
	Greater Manchester, Merseyside, Halton & Warrington	214		214	3 233	3 447
	Lancashire	183	49	232	1 298	1 529
	Unknown in the North West	420		420	2 907	3 326
	Total	**954**	**84**	**1 038**	**9 705**	**10 744**
Yorkshire & the Humber	Humber (East Riding, North Lincolnshire and North East Lincolnshire)	305		305	700	1 005
	North Yorks, Yorkshire Dales and North York Moors National Parks	207	8	215	526	741
	South Yorkshire	751		751	971	1 722
	West Yorkshire	685	0	686	1 997	2 683
	Unknown in Yorkshire & the Humber	247		247	822	1 068
	Total	**2 195**	**8**	**2 203**	**5 015**	**7 218**
North East	Durham	248	141	389	399	787
	Northumberland and the National Park	16	9	26	218	243
	Tees Valley	175	1	176	668	844
	Tyne and Wear	251	31	282	964	1 246
	Unknown in the North East	247	42	289	159	448
	Total	**937**	**225**	**1 162**	**2 407**	**3 569**
England		**17 772**	**5 970**	**23 742**	**43 981**	**67 723**

Table 10 Imports of primary aggregates by sub-region in 2014

Thousand tonnes

Region	Sub-region	Land-won sand and gravel	Marine sand and gravel	Total sand and gravel	Crushed rock	Total primary aggregates
South Wales	Remainder of South Wales	23	27	50	223	273
	South East Wales	4	53	57	778	835
	Unknown in South Wales	77	19	96	1 910	2 005
	Total	**104**	**99**	**203**	**2 911**	**3 114**
North Wales	North East Wales	8	13	20	152	172
	North West Wales	18	10	28	243	271
	Unknown in North Wales	264	30	294	106	400
	Total	**290**	**52**	**342**	**501**	**843**
Wales		**394**	**151**	**545**	**3 412**	**3 957**
England and Wales		**18 166**	**6 121**	**24 287**	**47 393**	**71 680**

1. Figures for imports by sub-region cannot be compared with imports by region (Tables 3 and 5). The latter show only inter-regional flows of primary aggregates. This table of imports by sub-region includes not only imports from other regions (inter-regional flows) but also flows from sub-region to sub-region within the same region.
2. In the case of sales of marine sand and gravel and crushed rock, imports are only shown where material has been moved outside the home sub-region were the wharf is located.
3. The sub-regions used for AM2014 are shown on Map 3.

Table 11 Consumption of primary aggregates by sub-region in 2014

Thousand tonnes

Region	Sub-region	Land-won sand and gravel	Marine sand and gravel	Total sand and gravel	Crushed rock	Total primary aggregates
South West	West of England (Avon)	124	277	401	1 308	1 709
	Cornwall and Isles of Scilly	2	11	13	884	897
	Devon, Plymouth, Torbay and Dartmoor Nat. Park	559	36	595	3 058	3 652
	Dorset	732	68	800	432	1 232
	Gloucestershire	544	28	571	2 648	3 219
	Somerset	448	79	526	4 801	5 328
	Wiltshire	539	74	613	1 140	1 752
	Unknown in the South West	243	67	310	896	1 206
	Total	**3 190**	**638**	**3 828**	**15 167**	**18 995**
South East	Berkshire	601	152	752	1 161	1 913
	Buckinghamshire and Milton Keynes	789		789	486	1 275
	East Sussex & Brighton and Hove	263	657	920	280	1 200
	Hampshire & Isle of Wight	882	1 140	2 022	912	2 933
	Kent and Medway	698	2 925	3 623	1 748	5 371
	Oxfordshire	759	6	765	1 447	2 212
	Surrey	763	237	1 000	304	1 304
	West Sussex	99	340	439	761	1 200
	Unknown in the South East	769	992	1 761	28	1 789
	Total	**5 623**	**6 448**	**12 071**	**7 126**	**19 197**
London	East London	942	2 249	3 190	679	3 869
	West London	764	1 140	1 904	2 029	3 933
	Unknown in Greater London	128	461	589	1 182	1 771
	Total	**1 834**	**3 849**	**5 683**	**3 890**	**9 573**
East of England	Bedfordshire (Central Bedfordshire, Bedford and Luton)	1 275	24	1 299	584	1 882
	Cambridgeshire and Peterborough	2 059	4	2 063	1 400	3 464
	Essex, Southend and Thurrock	3 133	1 195	4 329	1 525	5 854
	Hertfordshire	1 126	19	1 146	591	1 737
	Norfolk	1 341		1 341	308	1 649
	Suffolk	846	69	915	395	1 310
	Unknown in the East of England	184		184	38	222
	Total	**9 965**	**1 311**	**11 276**	**4 841**	**16 118**
East Midlands	Derbyshire and Peak District National Park	625		625	3 237	3 862
	Leicestershire and Rutland	1 410		1 410	5 766	7 176

Table 11 Consumption of primary aggregates by sub-region in 2014

Thousand tonnes

Region	Sub-region	Land-won sand and gravel	Marine sand and gravel	Total sand and gravel	Crushed rock	Total primary aggregates
East Midlands continued	Lincolnshire	989		989	819	1 808
	Northamptonshire	1 108		1 108	1 042	2 150
	Nottinghamshire	1 032		1 032	1 264	2 296
	Unknown in the East Midlands	513		513	14	527
	Total	**5 678**		**5 678**	**12 141**	**17 819**
West Midlands	Herefordshire	153	1	154	700	854
	Remainder of West Midlands	1 346		1 346	1 053	2 399
	Shropshire and Telford and Wrekin	343		343	2 025	2 368
	Staffordshire	2 101	0	2 102	1 040	3 141
	Warwickshire	475	0	475	865	1 339
	Worcestershire	197	2	199	540	740
	Unknown in the West Midlands Region	1 135		1 135	66	1 201
	Total	**5 750**	**4**	**5 753**	**6 289**	**12 043**
North West	Cheshire (Cheshire West & Chester and Cheshire East)	412	36	448	2 059	2 507
	Cumbria and Lake District National Park	521		521	1 520	2 041
	Greater Manchester, Merseyside Halton & Warrington	277	3	280	3 465	3 744
	Lancashire	371	49	419	3 326	3 745
	Unknown in the North West	420		420	2 907	3 326
	Total	**2 000**	**87**	**2 087**	**13 276**	**15 363**
Yorkshire & the Humber	Humber (East Riding, North Lincolnshire and North East Lincolnshire)	424		424	724	1 149
	North Yorks, Yorkshire Dales and North York Moors National Parks	1 116	8	1 125	2 801	3 926
	South Yorkshire	760		760	2 124	2 884
	West Yorkshire	702	0	702	2 536	3 238
	Unknown in Yorkshire & the Humber	247		247	822	1 068
	Total	**3 249**	**8**	**3 257**	**9 007**	**12 265**
North East	Durham	287	141	428	1 500	1 928
	Northumberland and the National Park	100	9	109	898	1 007
	Tees Valley	175	195	370	715	1 085
	Tyne and Wear	288	141	429	1 221	1 650
	Unknown in the North East	247	42	289	159	448
	Total	**1 097**	**528**	**1 625**	**4 494**	**6 118**
England		**38 385**	**12 874**	**51 259**	**76 230**	**127 489**

Table 11 Consumption of primary aggregates by sub-region in 2014

Thousand tonnes

Region	Sub-region	Land-won sand and gravel	Marine sand and gravel	Total sand and gravel	Crushed rock	Total primary aggregates
South Wales	Remainder of South Wales	166	92	258	1 530	1 788
	South East Wales	4	900	904	2 453	3 357
	Unknown in South Wales	77	19	96	1 910	2 005
	Total	**247**	**1 011**	**1 258**	**5 892**	**7 150**
North Wales	North East Wales	356	13	368	1 323	1 691
	North West Wales	143	10	152	554	706
	Unknown in North Wales	264	30	294	106	400
	Total	**762**	**52**	**815**	**1 983**	**2 798**
Wales		**1 010**	**1 063**	**2 073**	**7 875**	**9 948**
England and Wales		**39 395**	**13 937**	**53 332**	**84 105**	**137 438**

1. These figures are the same as the consumption totals by region in Tables 2b and 5. Very small amounts for non-aggregate use are included for a few MPAs.
2. The sub-regions used for AM2014 are shown on Map 3.

Table 12 Permitted reserves of land-won primary aggregates in active and inactive sites at 31 December 2014

Thousand tonnes

	Sand and Gravel					Crushed Rock					Grand total (Excluding dormant)
Region	**Active sites**	**Inactive: worked in past**	**Inactive: yet to be worked**	**Total**	***(Dormant sites)***	**Active sites**	**Inactive: worked in past**	**Inactive: yet to be worked**	**Total**	***(Dormant sites)***	
South West	15 696	8 704	4 524	28 924		672 346	145 323		817 669	294 068	846 593
South East	45 491	7 993	13 730	67 214	310	52 170	1		52 171		119 385
London	691	11		702							702
East of England	101 528	4 854	17 206	123 588	2 460	3 707	1 100		4 807		128 395
East Midlands	34 167	7 048	18 472	59 687	9 723	795 685	119 453	3 455	918 592	20 291	978 279
West Midlands	70 560	17 362	900	88 822	12 070	218 759	50 160		268 919	36 090	357 741
North West	20 773	607	4 100	25 480	2 678	254 865	2 952		257 817	14 846	283 298
Yorkshire & the Humber	21 356	3 453	400	25 209		223 671	15 563		239 233	500	264 442
North East	10 192	4 836	3 170	18 198		145 258	73 864	600	219 723		237 920
England	**320 454**	**54 867**	**62 502**	**437 823**	**27 241**	**2 366 462**	**408 415**	**4 055**	**2 778 932**	**365 794**	**3 216 756**
(%)	**95%**	**99%**	**99%**	**96%**	**95%**	**84%**	**65%**	**35%**	**81%**	**93%**	**82%**
South Wales	3 392			3 392	350	315 596	188 543	7 676	511 814	25 591	515 206
North Wales	14 991	500	600	16 091	1 025	130 658	26 934		157 592	1 450	173 683
Wales	**18 383**	**500**	**600**	**19 483**	**1 375**	**446 253**	**215 477**	**7 676**	**669 406**	**27 041**	**688 889**
(%)	**5%**	**1%**	**1%**	**4%**	**5%**	**16%**	**35%**	**65%**	**19%**	**7%**	**18%**
England and Wales	**338 837**	**55 367**	**63 102**	**457 306**	**28 616**	**2 812 715**	**623 892**	**11 731**	**3 448 338**	**392 835**	**3 905 645**

1. For aggregate use only.
2. Dormant sites are **not** included in 'Inactive sites worked in the past' or in the totals.
3. Data presented on dormant sites cannot be considered complete as some regions have dormant sites where the volume of aggregates contained is not known and, therefore, could not be supplied.
4. 94.1% of total reserves is based on figures supplied by site operators. The remaining 5.9% is based on estimates made by Mineral Planning Authorities.

Table 13 Permitted reserves of land-won primary aggregates in active and inactive sites by environmental designation at 31 December 2014

Thousand tonnes

	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Sand and gravel														
All sites	28 924	67 214	702	123 588	59 687	88 822	25 480	25 209	18 198	**437 823**	3 392	16 091	**19 483**	**457 306**
National Park		2 131								**2 131**	2 657		**2 657**	**4 788**
AONB	1 190	5 964		650		13 000				**20 804**		1 100	**1 100**	**21 904**
SSSI	6 049	5 815		3 022	512	17 464		3 836	5 931	**42 628**	100		**100**	**42 728**
SPA and SAC	5 679	3 446		541					4 148	**13 814**	100		**100**	**13 914**
Green Belt		33 556		15 680		29 366	4 176		2 480	**88 537**				**88 537**
Crushed rock														
All sites	817 669	52 171		4 807	918 592	268 919	257 817	239 233	219 723	**2 778 932**	511 814	157 592	**669 406**	**3 448 338**
National Park	c				94 374		33 883	85 310	c	**239 476**	111 853		**111 853**	**351 329**
AONB	185 572	3 072			2 697	13 376	11 717	16 513	21 623	**254 570**		5 006	**5 006**	**259 576**
SSSI	175 122	400		758	299 295	13 376	44 012	119 550	102 129	**754 644**	68 842	52 720	**121 562**	**876 206**
SPA and SAC	27 774				11 628		44 011	36 934	40 571	**160 919**	1 176	37 765	**38 941**	**199 861**
Green Belt	37 996	31 550				22 420	11 000	54 727		**158 443**				**158 443**

1. For aggregate use only.
2. Dormant sites are **not** included.
3. Designations are not mutually exclusive, e.g. SSSIs may overlap with others, such as National Parks and AONBs. Special Areas of Conservation (SAC) and Special Protection Areas (SPA) are also SSSIs. They are sub-sets of SSSIs. Some designations, notably SSSIs, may only coincide with a small part of an extant planning permission. However, the total sales for the mineral working are recorded even though there may be no extraction within the designation. The degree of overlap, and the actual or potential impacts of mineral extraction on the conservation interest of the site will vary and are not reflected in the figures.
4. Green Belt is a planning policy designation.
5. To maintain confidentiality some regional figures have been left blank. The totals remain correct.

Table 14 Total reserves of primary aggregates granted planning permission between 2010 and 2014

Thousand tonnes

Region	Sand and gravel		Crushed rock		Grand total	
	Thousand tonnes	No. of sites	Thousand tonnes	No. of sites	Thousand tonnes	No. of sites
South West	7 744	12	15 950	5	23 694	17
South East	27 458	28	10 523	3	37 981	31
London						
East of England	43 921	37	3 340	2	47 261	39
East Midlands	20 109	20	146 424	11	166 532	31
West Midlands	22 578	8	22 413	3	44 991	11
North West	8 848	6	3 955	10	12 803	16
Yorkshire & the Humber	9 380	10	32 835	12	42 215	22
North East	5 714	7	25 531	11	31 245	18
England	**145 751**	**128**	**260 970**	**57**	**406 721**	**185**
South Wales	2 350	2	16 956	17	19 306	19
North Wales	600	1	3 000	2	3 600	3
Wales	**2 950**	**3**	**19 956**	**19**	**22 906**	**22**
England and Wales	**148 701**	**131**	**280 926**	**76**	**429 627**	**207**

1. Crushed rock comprises limestone (including dolomite), igneous rock, sandstone, chalk and ironstone. Sand and gravel also includes sites for sand only.
2. In addition, in North Wales, four permissions were granted containing a total of 12.7 million tonnes of slate.

Table 15 Total quantity of primary aggregates refused planning permission between 2010 and 2014

Thousand tonnes

	Sand and gravel		Crushed rock		Grand total	
Region	**Thousand tonnes**	**No. of sites**	**Thousand tonnes**	**No. of sites**	**Thousand tonnes**	**No. of sites**
South West	98	1			98	1
South East	1 665	3			1 665	3
London						
East of England	8 593	7			8 593	7
East Midlands			125	1	125	1
West Midlands	1 420	1			1 420	1
North West						
Yorkshire & the Humber						
North East						
England	**11 776**	**12**	**125**	**1**	**11 901**	**13**
South Wales						
North Wales						
Wales						
England and Wales	**11 776**	**12**	**125**	**1**	**11 901**	**13**

1. Crushed rock comprises limestone (including dolomite), igneous rock, sandstone, chalk and ironstone. Sand and gravel also includes sites for sand only.
2. In addition, in North Wales, one permission was refused containing a total of 0.15 million tonnes of slate.

Table 16 Total quantity of primary aggregates currently awaiting planning permission decision between 2010 and 2014

Thousand tonnes

	Sand and gravel		Crushed rock		Grand total	
Region	**Thousand tonnes**	**No. of sites**	**Thousand tonnes**	**No. of sites**	**Thousand tonnes**	**No. of sites**
South West	6 444	4	19 943	4	26 387	8
South East	13 268	8	72	1	13 340	9
London						
East of England	7 283	7	1 200	1	8 483	8
East Midlands	8 378	5	23 822	4	32 200	9
West Midlands	8 787	5			8 787	5
North West	9 000	1	10 070	3	19 070	4
Yorkshire & the Humber	21 486	5	6 831	7	28 317	12
North East	550	1	2 200	1	2 750	2
England	**75 196**	**36**	**64 137**	**21**	**139 333**	**57**
South Wales			40 456	4	40 456	4
North Wales						
Wales			**40 456**	**4**	**40 456**	**4**
England and Wales	**75 196**	**36**	**104 593**	**25**	**179 789**	**61**

1. As at 31 December 2014.
2. Includes planning permissions awaiting a Section 106 Agreement.
3. North West excludes an application submitted in 2008 and currently awaiting a decision (5.2 million tonnes). South Wales excludes an application submitted in 2003 and currently awaiting a decision (0.5 Mt).

Table 17 Total quantity of primary aggregates withdrawn from the planning application process between 2010 and 2014

Thousand tonnes

	Sand and gravel		Crushed rock		Grand total	
Region	**Thousand tonnes**	**No. of sites**	**Thousand tonnes**	**No. of sites**	**Thousand tonnes**	**No. of sites**
South West	300	1			300	1
South East	6 376	5			6 376	5
London						
East of England	970	2			970	2
East Midlands	120	1			120	1
West Midlands						
North West						
Yorkshire & the Humber						
North East						
England	**7 766**	**9**			**7 766**	**9**
South Wales						
North Wales						
Wales						
England and Wales	**7 766**	**9**			**7 766**	**9**

1. Only includes those planning permission applications withdrawn and not subsequently re-submitted.

Table 18 Number of active land-won quarries and marine wharves in 2014

	Quarry						Marine wharf	
Region	**Limestone**	**Igneous rock**	**Sandstone**	**Chalk**	**Ironstone**	**Sand & gravel**	**Sand & gravel**	**Crushed rock**
South West	30	10	9			27	8	2
South East	15			4	3	56	24	11
London						2	9	6
East of England	2		3	2		77	3	1
East Midlands	42	4	13	1	1	38		
West Midlands	4	3	2		1	28		
North West	16	4	20			28	1	1
Yorkshire & the Humber	23		25	3		13	1	1
North East	12	8	2			8	4	2
England	**144**	**29**	**74**	**10**	**5**	**283**	**50**	**24**
South Wales	22	8	20			7	11	1
North Wales	9	6				6	2	
Wales	**31**	**14**	**20**			**13**	**13**	**1**
England and Wales	**175**	**43**	**94**	**10**	**5**	**296**	**63**	**25**

Table A1 Sales of land-won sand and gravel by product (end use) in 2014

Thousand tonnes

Product	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Sand														
Sand for asphalt	61	218		295	216	66	76	20	104	**1 057**	1	10	**10**	**1 067**
Sand for use in mortar (building sand)	497	1 262	0	1 374	387	511	755	272	287	**5 346**	71	72	**143**	**5 489**
Sand for concreting	1 459	1 447	105	4 021	2 693	1 994	693	1 067	292	**13 772**	71	399	**470**	**14 242**
Gravel														
Gravel for asphalt (on or off site)	17			45	12	3		5		**83**				**83**
Gravel for concrete aggregate	581	1 689	124	2 224	1 429	1 409	8	339	82	**7 883**	24	172	**196**	**8 079**
Other screened and graded gravels for other aggregate purposes	453	863	78	1 091	1 083	807	69	559	53	**5 056**	20	176	**196**	**5 252**
Sand and gravel														
Sand and gravel for constructional fill	209	344	68	1 646	638	862	424	248	55	**4 495**	18	68	**86**	**4 580**
Undifferentiated aggregate use	0	35		889	143	225	435			**1 727**				**1 727**
Total for aggregate use	**3 278**	**5 858**	**376**	**11 586**	**6 600**	**5 877**	**2 461**	**2 509**	**873**	**39 418**	**205**	**897**	**1 102**	**40 520**
Total for all non-aggregate use	**129**	**794**		**376**	**296**	**5**	**1 113**	**c**	**c**	**2 780**	**112**	**3**	**115**	**2 895**
Total for all uses	**3 407**	**6 652**	**376**	**11 962**	**6 897**	**5 881**	**3 574**	**c**	**c**	**42 199**	**317**	**900**	**1 216**	**43 415**

Table A2 Sales of marine-dredged sand and gravel by product (end use) in 2014

Thousand tonnes

Product	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Sand														
Sand for asphalt	3	13	19							**35**	7		**7**	**42**
Sand for use in mortar (building sand)	201	72	76				43		16	**408**	607	30	**637**	**1 045**
Sand for concreting	359	3 084	1 982	175			52		488	**6 139**	365		**365**	**6 504**
Gravel														
Gravel for use in asphalt (on or off site)		1	7				2			**9**				**9**
Gravel for concrete aggregate	29	1 976	970	163			13		23	**3 173**	0		**0**	**3 173**
Other screened and graded gravels for other aggregate purposes	47	663	1 362	12					10	**2 094**	32		**32**	**2 126**
Sand and gravel														
Other sand and gravel, including for constructional fill	5	318	23	0					0	**346**	2		**2**	**348**
Undifferentiated aggregate use		500	240							**740**	0			**740**
Total for aggregate use	**645**	**6 626**	**4 678**	**350**			**109**		**537**	**12 944**	**1 013**	**30**	**1 043**	**13 987**
Total for all non-aggregate use	**6**	**0**								**6**	**141**		**141**	**147**
Total for all uses	**650**	**6 626**	**4 678**	**350**			**109**		**537**	**12 950**	**1 154**	**30**	**1 184**	**14 134**

Table A3 Sales of crushed rock by product (end use) in 2014

Thousand tonnes

Product	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Crushed rock, coated for asphalt on site (exc. weight of binder)	980				1 436	765	130	506	269	**4 085**	754	100	**854**	**4 939**
Crushed rock, coated for asphalt off site	570	39		57	4 025	1 033	669	1 054	310	**7 758**	1 484	289	**1 773**	**9 532**
Crushed rock for uncoated roadstone & foundation work	3 135	182			5 083	628	585	1 447	1 011	**12 072**	640	822	**1 462**	**13 534**
Rock chippings for surface dressing	279				915	144	12	291	20	**1 662**	96	122	**218**	**1 880**
Rail ballast	1				2 044	7	151		5	**2 207**		12	**12**	**2 218**
Concrete aggregate	3 000	114			4 259	170	870	2 762	665	**11 841**	1 191	881	**2 072**	**13 913**
Other screened and graded aggregates	9 620	572			2 822	423	1 105	1 547	799	**16 887**	1 764	984	**2 748**	**19 635**
Armourstone and gabion stone	81	51			185	9	189	45	67	**628**	23	27	**51**	**678**
Other construction uses, including fill	3 144	834		60	2 972	564	1 125	1 387	1 018	**11 104**	1 723	931	**2 653**	**13 757**
Undifferentiated aggregate use	630	2		514	67	33	1 012			**2 258**	150		**150**	**2 408**
Total for aggregate use	**21 439**	**1 795**		**632**	**23 806**	**3 775**	**5 849**	**9 040**	**4 165**	**70 501**	**7 825**	**4 168**	**11 994**	**82 495**
Building stone (exc. reconstituted stone)	211	27			102	0	50	60	12	**461**	138	2	**140**	**601**
Cement manufacture					4 789	0	5			**4 794**	350	688	**1 038**	**5 832**
Agricultural use on the land and horticulture	139	55		20	296	44	74	172	439	**1 238**	126	19	**145**	**1 383**
Flux in iron and steel manufacture	105				1 303		617	343	619	**2 987**	360		**360**	**3 348**
For all other industrial uses	59				4 603		1			**4 728**	2		**2**	**4 730**
Undifferentiated non-aggregate use		1			161		218			**380**	3	0	**3**	**382**
Total for all non-aggregate use	**513**	**84**		**20**	**11 254**	**44**	**965**	**637**	**1 070**	**14 588**	**980**	**708**	**1 688**	**16 276**
Total for all uses	**21 953**	**1 879**		**652**	**35 061**	**3 819**	**6 814**	**9 677**	**5 235**	**85 089**	**8 805**	**4 876**	**13 681**	**98 771**

Table A4 Sales of crushed rock for aggregate use by mineral in 2014

Thousand tonnes

Region	Limestone / dolomite	Igneous rock	Sandstone	Chalk	Ironstone	Total
South West	18 652	2 329	459			**21 439**
South East	1 603			16	176	**1 795**
London						
East of England	572		60			**632**
East Midlands	10 971	12 765	10		60	**23 806**
West Midlands	471	1 363	1 941			**3 775**
North West	3 706	328	1 815			**5 849**
Yorkshire & the Humber	7 677		1 314	49		**9 040**
North East	2 881	1 281	3			**4 165**
England	**46 533**	**18 066**	**5 602**	**64**	**236**	**70 501**
South Wales	4 540	1 577	1 709			**7 825**
North Wales	3 508	660				**4 168**
Wales	**8 049**	**2 236**	**1 709**			**11 994**
England and Wales	**54 582**	**20 302**	**7 311**	**64**	**236**	**82 495**

1. For aggregate use only.

Table A5 Sales of crushed rock for non-aggregate use by mineral in 2014

Thousand tonnes

Region	Limestone / dolomite	Igneous rock	Sandstone	Chalk	Ironstone	Total
South West	504	8	2			**513**
South East	39			26	19	**84**
London						
East of England				20		**20**
East Midlands	11 177	1	75		1	**11 254**
West Midlands	44		0			**44**
North West	712		253			**965**
Yorkshire & the Humber	536		59	42		**637**
North East	1 065	1	4			**1 070**
England	**14 077**	**10**	**394**	**87**	**20**	**14 588**
South Wales	840	3	137			**980**
North Wales	708	0				**708**
Wales	**1 548**	**3**	**137**			**1 688**
England and Wales	**15 625**	**13**	**531**	**87**	**20**	**16 276**

Table B1 Permitted reserves of land-won primary aggregates at 31 December 2014 by mineral

Thousand tonnes

	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Sand and gravel														
Concreting sand	2 888	7 401	60	24 968	5 588	2 867	2 540	4 930	3 678	**54 920**	550	11 867	**12 417**	**67 337**
Other sand (Inc. building & asphalting sand)	5 564	22 467		9 616	4 067	2 935	9 644	1 711	3 351	**59 354**	1 300	9	**1 309**	**60 663**
Undifferentiated sand	3 229	3 630		7 451	1 253	15 232	5 211	1 673	6 491	**44 169**		540	**540**	**44 709**
Total sand [(a)]	11 682	33 497	60	42 034	10 909	21 034	17 394	8 314	13 521	**158 443**	1 850	12 416	**14 266**	**172 709**
Total gravel	2 658	12 955	631	15 864	6 342	3 271	1 189	7 333	2 904	**53 145**	445	1 567	**2 012**	**55 157**
Undifferentiated sand & gravel [(b)]	14 711	25 580	11	70 915	52 225	64 517	16 657	10 492	1 773	**256 882**	2 000	2 108	**4 108**	**260 989**
Total sand & gravel - for aggregate	**28 924**	**67 214**	**702**	**123 588**	**59 687**	**88 822**	**25 480**	**25 209**	**18 198**	**437 823**	**3 392**	**16 091**	**19 483**	**457 306**
Sand & gravel - for non-aggregate use	c	4 818		5 225	9 789		9 760	c		**30 647**	903		**903**	**31 550**
Crushed rock														
Limestone/dolomite - for aggregate	597 242	50 644		3 012	545 640	179 452	130 700	206 646	132 116	**1 845 452**	306 716	106 541	**413 257**	**2 258 709**
- for non-aggregate use	9 655	513			424 816	2 950	33 129	1 901	27 456	**500 420**	6 798	31 408	**38 207**	**538 627**
Igneous rock - for aggregate	195 638				366 879	41 062	23 066		87 602	**714 247**	74 315	51 051	**125 367**	**839 613**
- for non-aggregate use	4 750						5 000			**9 750**				**9 750**
Sandstone - for aggregate	22 144	1		1 795	2 326	48 405	104 052	32 408	5	**211 136**	130 783		**130 783**	**341 919**
- for non-aggregate use	9	0			6 898		767	4 380	95	**12 149**	2 856		**2 856**	**15 005**
Chalk - for aggregate	2 644	1 126			3 047			180		**6 997**				**6 997**
- for non-aggregate use	20 700	2 100		1 050				21 183		**45 033**				**45 033**
Ironstone - for aggregate		400			700					**1 100**				**1 100**
- for non-aggregate use		25			50					**75**				**75**
Total crushed rock – for aggregate	**817 669**	**52 171**		**4 807**	**918 592**	**268 919**	**257 817**	**239 233**	**219 723**	**2 778 932**	**511 814**	**157 592**	**669 406**	**3 448 338**
- for non-aggregate use	35 114	2 638		1 050	431 764	2 950	38 897	27 465	27 551	**567 428**	9 654	31 408	**41 063**	**608 490**

1. Figures include reserves in Active and Inactive sites, but not Dormant sites.
2. Total sand (a) also includes undifferentiated sand.
3. Undifferentiated sand and gravel (b) is not included elsewhere.
4. Total reserves for aggregate use exclude material for non-aggregate use.

Table B2 Permitted reserves of land-won primary aggregates at 31 December 2014 by environmental designation – aggregate use

Thousand tonnes

	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Sand and gravel														
All sites	28 924	67 214	702	123 588	59 687	88 822	25 480	25 209	18 198	**437 823**	3 392	16 091	**19 483**	**457 306**
National Park		2 131								**2 131**	2 657		**2 657**	**4 788**
AONB	1 190	5 964		650		13 000				**20 804**		1 100	**1 100**	**21 904**
SSSI	6 049	5 815		3 022	512	17 464		3 836	5 931	**42 628**	100		**100**	**42 728**
SPA and SAC	5 679	3 446		541					4 148	**13 814**	100		**100**	**13 914**
Green Belt	3 279	33 556		15 680		29 366	4 176		2 480	**88 537**				**88 537**
Crushed rock														
All sites	817 669	52 171		4 807	918 592	268 919	257 817	239 233	219 723	**2 770 601**	511 814	157 592	**669 406**	**3 448 338**
National Park	c				94 374		33 883	85 310	c	**239 476**	111 853		**111 853**	**351 329**
AONB	185 572	3 072			2 697	13 376	11 717	16 513	21 623	**252 559**		5 006	**5 006**	**259 576**
SSSI	175 122	400		758	299 295	13 376	44 012	119 550	102 129	**754 644**	68 842	52 720	**121 562**	**876 206**
SPA and SAC	27 774				11 628		44 011	36 934	40 571	**160 919**	1 176	37 765	**38 941**	**199 861**
Green Belt	37 996	31 550				22 420	11 000	54 727		**158 443**				**158 443**

1. For aggregate use only.
2. Figures include reserves in Active and Inactive sites, but not Dormant sites.
3. Designations are not mutually exclusive, e.g. SSSIs may overlap with others, such as National Parks and AONBs. Special Areas of Conservation (SAC) and Special Protection Areas (SPA) are also SSSIs. They are sub-sets of SSSIs. Some designations, notably SSSIs, may only coincide with a small part of an extant planning permission. However, the total sales for the mineral working are recorded even though there may be no extraction within the designation. The degree of overlap, and the actual or potential impacts of mineral extraction on the conservation interest of the site will vary and are not reflected in the figures.
4. Green Belt is a planning policy designation.
5. To maintain confidentiality some regional figures have been left blank. The totals remain correct.

Table B3 Permitted reserves of land-won primary aggregates at 31 December 2014 by environmental designation – non-aggregate use

Thousand tonnes

	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Sand and gravel														
All sites	c	4 818		5 225	9 789		9 760	c		**30 647**	903		**903**	**31 550**
National Park											73		**73**	**73**
AONB		2 684								**2 684**				**2 684**
SSSI	124			11	39					**173**				**173**
SPA and SAC	124			11						**135**				**135**
Green Belt		4 707		910			902			**6 519**				**6 519**
Crushed rock														
All sites	35 114	2 638		1 050	431 764	2 950	38 897	27 465	27 551	**567 428**	9 654	31 408	**41 063**	**608 490**
National Park					173 624		9 530			**183 154**	10		**10**	**183 164**
AONB	13 267	2 170								**15 437**				**15 437**
SSSI	4 951			250	46 072		5 009		23 257	**79 539**		31 408	**31 408**	**110 948**
SPA and SAC					4 754		5 000		23 257	**33 010**		31 408	**31 408**	**64 419**
Green Belt	20 700	2 100					380	4 429	750	**28 359**				**28 359**

1. Figures include reserves in Active and Inactive sites, but not Dormant sites.
2. Designations are not mutually exclusive, e.g. SSSIs may overlap with others, such as National Parks and AONBs. Special Areas of Conservation (SAC) and Special Protection Areas (SPA) are also SSSIs. They are sub-sets of SSSIs. Some designations, notably SSSIs, may only coincide with a small part of an extant planning permission. However, the total sales for the mineral working are recorded even though there may be no extraction within the designation. The degree of overlap, and the actual or potential impacts of mineral extraction on the conservation interest of the site will vary and are not reflected in the figures.
3. Green Belt is a planning policy designation.

Table B4 Permitted reserves of primary aggregates at 31 December 2014 in dormant sites by environmental designation - aggregate use

Thousand tonnes

	South West	South East	London	East of England	East Midlands	West Midlands	North West	Yorkshire & Humber	North East	England Total	South Wales	North Wales	Wales Total	England & Wales Total
Sand and gravel														
All sites		310		2 460	9 723	12 070	2 678			**27 241**	350	1 025	**1 375**	**28 616**
National Park		250								**250**				**250**
AONB														
SSSI					2 460					**2 460**	350		**350**	**2 810**
SPA and SAC					2 460					**2 460**	350		**350**	**2 810**
Green Belt						1 880	2 246			**4 126**				**4 126**
Crushed rock														
All sites	294 068				20 291	36 090	14 846	500		**365 794**	25 591	1 450	**27 041**	**392 835**
National Park					4 000					**4 000**	360		**360**	**4 360**
AONB	1 465				2 900	4 600	14 846			**23 811**				**23 811**
SSSI	202 753						14 846			**217 599**	2 721		**2 721**	**220 320**
SPA and SAC	41 000						14 846			**55 846**				**55 846**
Green Belt								500		**500**				**500**

1. For aggregate use only.
2. Designations are not mutually exclusive, e.g. SSSIs may overlap with others, such as National Parks and AONBs. Special Areas of Conservation (SAC) and Special Protection Areas (SPA) are also SSSIs. They are sub-sets of SSSIs. Some designations, notably SSSIs, may only coincide with a small part of an extant planning permission. However, the total sales for the mineral working are recorded even though there may be no extraction within the designation. The degree of overlap, and the actual or potential impacts of mineral extraction on the conservation interest of the site will vary and are not reflected in the figures.
3. Green Belt is a planning policy designation.
4. The data presented on dormant sites cannot be considered complete as some regions have dormant sites where the volume of aggregates contained is not known and, therefore, could not be supplied.

Table C1 Total reserves of sand and gravel granted planning permission between 2010 and 2014 by site type

Thousand tonnes

	New quarries		Extensions		Borrow pits	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West	283	1	7 457	10	4	1
South East	14 260	11	13 166	16	32	1
London						
East of England	14 961	13	27 655	21	1 305	3
East Midlands	10 799	6	9 310	14		
West Midlands	2 580	3	19 998	5		
North West			8 848	6		
Yorkshire & the Humber	955	2	7 800	5	625	3
North East	4 644	5	1 070	2		
England	**48 482**	**41**	**95 303**	**79**	**1 966**	**8**
South Wales			2 350	2		
North Wales	600	1				
Wales	**600**	**1**	**2 350**	**2**		
England and Wales	**49 082**	**42**	**97 653**	**81**	**1 966**	**8**

1. New quarries excludes borrow pits.
2. Extensions include lateral and vertical.

Table C2 Total quantity of sand and gravel refused planning permission between 2010 and 2014 by site type

Thousand tonnes

	New quarries		Extensions		Borrow pits	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West	98	1				
South East	905	2	760	1		
London						
East of England	2 593	3	5 700	3	300	1
East Midlands						
West Midlands	1 420	1				
North West						
Yorkshire & the Humber						
North East						
England	**5 016**	**7**	**6 460**	**4**	**300**	**1**
South Wales						
North Wales						
Wales						
England and Wales	**5 016**	**7**	**6 460**	**4**	**300**	**1**

1. New quarries excludes borrow pits.
2. Extensions include lateral and vertical.

Table C3 Total quantity of sand and gravel currently awaiting planning permission decision between 2010 and 2014 by site type

Thousand tonnes

	New quarries		Extensions		Borrow pits	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West	3 064	2	3 380	2		
South East	5 516	4	7 752	4		
London						
East of England	3 272	3	4 010	3	1	1
East Midlands			8 378	5		
West Midlands			8 787	5		
North West			9 000	1		
Yorkshire & the Humber	11 370	1	10 116	4		
North East			550	1		
England	**23 222**	**10**	**51 973**	**25**	**1**	**1**
South Wales						
North Wales						
Wales						
England and Wales	**23 222**	**10**	**51 973**	**25**	**1**	**1**

1. New quarries excludes borrow pits.
2. Extensions include lateral and vertical.
3. Includes planning permissions awaiting a Section 106 Agreement.
4. As at 31 December 2014.

Table C4 Total quantity of sand and gravel withdrawn from the planning application process between 2010 and 2014 by site type

Thousand tonnes

	New quarries		Extensions		Borrow pits	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West	300	1				
South East	6 376	5				
London						
East of England	70	1	900	1		
East Midlands			120	1		
West Midlands						
North West						
Yorkshire & the Humber						
North East						
England	**6 746**	**7**	**1 020**	**2**		
South Wales						
North Wales						
Wales						
England and Wales	**6 746**	**7**	**1 020**	**2**		

1. New quarries excludes borrow pits.
2. Extensions include lateral and vertical.
3. Only includes those planning permission applications withdrawn and not subsequently re-submitted.

Table C5 Total reserves of crushed rock granted planning permission between 2010 and 2014 by site type

Thousand tonnes

	New quarries		Extensions		Borrow pits	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West			15 950	5		
South East			10 523	3		
London						
East of England	3 340	2				
East Midlands	1 950	1	144 474	10		
West Midlands			22 413	3		
North West	100	1	3 845	4	10	5
Yorkshire & the Humber	50	2	32 785	10		
North East	20 570	3	4 936	5	25	3
England	**26 010**	**9**	**234 925**	**40**	**35**	**8**
South Wales	80	1	16 861	14	15	2
North Wales	500	1	2 500	1		
Wales	**580**	**2**	**19 361**	**15**	**15**	**2**
England and Wales	**26 590**	**11**	**254 286**	**55**	**50**	**10**

1. New quarries excludes borrow pits.
2. Extensions include lateral and vertical.

Table C6 Total quantity of crushed rock refused planning permission between 2010 and 2014 by site type

Thousand tonnes

	New quarries		Extensions		Borrow pits	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West						
South East						
London						
East of England						
East Midlands			125	1		
West Midlands						
North West						
Yorkshire & the Humber						
North East						
England			**125**	**1**		
South Wales						
North Wales						
Wales						
England and Wales			**125**	**1**		

1. New quarries excludes borrow pits.
2. Extensions include lateral and vertical.

Table C7 Total quantity of crushed rock currently awaiting planning permission decision between 2010 and 2014 by site type

Thousand tonnes

	New quarries		Extensions		Borrow pits	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West			19 943	4		
South East			72	1		
London						
East of England			1 200	1		
East Midlands			23 822	4		
West Midlands						
North West			10 070	3		
Yorkshire & the Humber			6 831	7		
North East			2 200	1		
England			**64 137**	**21**		
South Wales	891	2	39 565	2		
North Wales						
Wales	**891**	**2**	**39 565**	**2**		
England and Wales	**891**	**2**	**103 702**	**23**		

1. New quarries excludes borrow pits.
2. Extensions include lateral and vertical.
3. Includes planning permissions awaiting a Section 106 Agreement.
4. As at 31 December 2014.

Table C8 Total quantity of crushed rock withdrawn from the planning application process between 2010 and 2014 by site type

Thousand tonnes

	New quarries		Extensions		Borrow pits	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West						
South East						
London						
East of England						
East Midlands						
West Midlands						
North West						
Yorkshire & the Humber						
North East						
England						
South Wales						
North Wales						
Wales						
England and Wales						

1. New quarries excludes borrow pits.
2. Extensions include lateral and vertical.
3. Only includes those planning permission applications withdrawn and not subsequently re-submitted.
4. Table is intentionally blank.

Table C9 Total reserves of sand and gravel granted planning permission between 2010 and 2014 by environmental designation

Thousand tonnes

	National Park		AONB		SPA / SAC		SSSI		Green Belt	
	Thousand tonnes	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West									265	2
South East	565	1	512	2	1 892	3	1 892	3	14 696	11
London										
East of England					630	1	2 449	3	8 095	3
East Midlands					1 200	1	2 200	2	2 500	2
West Midlands									2 580	2
North West									1 385	3
Yorkshire & the Humber									900	1
North East					1 004	1	1 004	1	450	1
England	**565**	**1**	**512**	**2**	**4 726**	**6**	**7 545**	**9**	**30 871**	**25**
South Wales	2 350	2								
North Wales										
Wales	**2 350**	**2**								
England and Wales	**2 915**	**3**	**512**	**2**	**4 726**	**6**	**7 545**	**9**	**30871**	**25**

1. SPA / SAC are a subset of SSSI.
2. Green Belt is a planning policy designation.

Table C10 Total quantity of sand and gravel refused planning permission between 2010 and 2014 by environmental designation

Thousand tonnes

	National Park		AONB		SPA / SAC		SSSI		Green Belt	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West										
South East			760	1						
London										
East of England					1 250	1	1 250	1	750	2
East Midlands										
West Midlands										
North West										
Yorkshire & the Humber										
North East										
England			**760**	**1**	**1 250**	**1**	**1 250**	**1**	**750**	**2**
South Wales										
North Wales										
Wales										
England and Wales			**760**	**1**	**1 250**	**1**	**1 250**	**1**	**750**	**2**

1. SPA / SAC are a subset of SSSI.
2. Green Belt is a planning policy designation.

Table C11 Total quantity of sand and gravel currently awaiting planning permission decision between 2010 and 2014 by environmental designation

Thousand tonnes

	National Park		AONB		SPA / SAC		SSSI		Green Belt	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West									180	1
South East									5 516	4
London										
East of England										
East Midlands										
West Midlands										
North West									9 000	1
Yorkshire & the Humber							4 000	1		
North East									550	1
England							**4 000**	**1**	**15 246**	**7**
South Wales										
North Wales										
Wales										
England and Wales							**4 000**	**1**	**15 246**	**7**

1. SPA / SAC are a subset of SSSI.
2. Green Belt is a planning policy designation.
3. Includes planning permissions awaiting a Section 106 Agreement.
4. As at 31 December 2014.

Table C12 Total quantity of sand and gravel withdrawn from the planning application process between 2010 and 2014 by environmental designation

Thousand tonnes

	National Park		AONB		SPA / SAC		SSSI		Green Belt	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West										
South East	1 500	1							3 360	2
London										
East of England										
East Midlands										
West Midlands										
North West										
Yorkshire & the Humber										
North East										
England	**1 500**	**1**							**3 360**	**2**
South Wales										
North Wales										
Wales										
England and Wales	**1 500**	**1**							**3 360**	**2**

1. SPA / SAC are a subset of SSSI.
2. Green Belt is a planning policy designation.
3. Only includes those planning permission applications withdrawn and not subsequently re-submitted.

Table C13 Total reserves of crushed rock granted planning permission between 2010 and 2014 by environmental designation

Thousand tonnes

	National Park		AONB		SPA / SAC		SSSI		Green Belt	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West			10 830	2			11 550	4		
South East										
London										
East of England									440	1
East Midlands										
West Midlands										
North West			10	5	7	3	7	3	2 590	2
Yorkshire & the Humber	27 500	2	2 000	1	2 000	1	26 500	3	2 303	7
North East	1 100	1	25	3	25	3	25	3	0	
England	**28 600**	**3**	**12 865**	**11**	**2 032**	**7**	**38 082**	**13**	**5 333**	**10**
South Wales										
North Wales			500	1	2 500	1	2 500	1		
Wales			**500**	**1**	**2 500**	**1**	**2 500**	**1**		
England and Wales	**28 600**	**3**	**13 365**	**12**	**4 532**	**8**	**40 582**	**14**	**5 333**	**10**

1. SPA / SAC are a subset of SSSI.
2. Green Belt is a planning policy designation.

Table C14 Total quantity of crushed rock refused planning permission between 2010 and 2014 by environmental designation

Thousand tonnes

	National Park		AONB		SPA / SAC		SSSI		Green Belt	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West										
South East										
London										
East of England										
East Midlands	125	1					125	1		
West Midlands										
North West										
Yorkshire & the Humber										
North East										
England	**125**	**1**					**125**	**1**		
South Wales										
North Wales										
Wales										
England and Wales	**125**	**1**					**125**	**1**		

1. SPA / SAC are a subset of SSSI.
2. Green Belt is a planning policy designation.

Table C15 total quantity of crushed rock currently awaiting planning application decision between 2010 and 2014 by environmental designation

Thousand tonnes

	National Park		AONB		SPA / SAC		SSSI		Green Belt	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West			270	1			473	1		
South East										
London										
East of England										
East Midlands	390	1			390	1	20 390	2		
West Midlands										
North West									1 400	1
Yorkshire & the Humber							1 610	1	4 631	5
North East										
England	**390**	**1**	**270**	**1**	**390**	**1**	**22 473**	**4**	**6 031**	**6**
South Wales	26 435	2								
North Wales										
Wales	**26 435**	**2**								
England and Wales	**26 825**	**3**	**270**	**1**	**390**	**1**	**22473**	**4**	**6 031**	**6**

1. SPA / SAC are a subset of SSSI.
2. Green Belt is a planning policy designation.
3. Includes planning permissions awaiting a Section 106 Agreement.

Table C16 Total quantity of crushed rock withdrawn from the planning application process between 2010 and 2014 by environmental designation

Thousand tonnes

	National Park		AONB		SPA / SAC		SSSI		Green Belt	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West										
South East										
London										
East of England										
East Midlands										
West Midlands										
North West										
Yorkshire & the Humber										
North East										
England										
South Wales										
North Wales										
Wales										
England and Wales										

1. SPA / SAC are a subset of SSSI.
2. Green Belt is a planning policy designation.
3. Only includes those planning permission applications withdrawn and not subsequently re-submitted.
4. Table is intentionally blank.

Table C17 Total quantity of sand and gravel granted, refused, withdrawn or awaiting planning permission between 2010 and 2014 for sites within a development plan allocated area

Thousand tonnes

	Granted		Refused		Withdrawn		Awaiting (as at 31 Dec. 2014)	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West	1 342	2			300	1	3 200	1
South East	1 155	3			1 500	1	12 503	6
London								
East of England	32 794	19					6 510	4
East Midlands	10 848	8					5 970	3
West Midlands	20 180	5					5 700	2
North West	7 523	2						
Yorkshire & the Humber	2 300	3						
North East								
England	**76 142**	**42**			**1 800**	**2**	**33 883**	**16**
South Wales								
North Wales								
Wales								
England and Wales	**76 142**	**42**			**1 800**	**2**	**33 883**	**16**

1. Applies to allocated sites, preferred areas and areas of search.

Table C18 Total quantity of crushed rock granted, refused, withdrawn or awaiting planning permission between 2010 and 2014 for sites within a development plan allocated area

Thousand tonnes

	Granted		Refused		Withdrawn		Awaiting (as at 31 Dec. 2014)	
Region	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**	**Thousand tonnes**	**Permissions**
South West	11 050	3					17 773	2
South East								
London								
East of England	2 900	1					1 200	1
East Midlands	7 350	4						
West Midlands								
North West	2 000	1					1 400	1
Yorkshire & the Humber	1 416	4					520	1
North East	21 370	3						
England	**46 086**	**16**					**20 893**	**5**
South Wales	12 470	7					27 056	2
North Wales								
Wales	**12 470**	**7**					**27 056**	**2**
England and Wales	**58 556**	**23**					**47 949**	**7**

1. Applies to allocated sites, preferred areas and areas of search.

Table D1 Comparison of sales of primary aggregates, 1973, 1977, 1985, 1989, 1993, 1997, 2001, 2005, 2009 and 2014

Thousand tonnes

Sand and Gravel – Land-Won and Marine Dredged										
Region	**1973**	**1977**	**1985**	**1989**	**1993**	**1997**	**2001**	**2005**	**2009**	**2014**
South West	8 662	5 509	6 380	7 703	4 605	5 092	5 791	5 264	3 638	3 923
South East, London, East of England	60 660	46 731	49 305	62 345	38 648	36 175	40 643	34 474	25 220	29 474
East Midlands	14 184	10 539	10 959	15 961	13 278	11 314	10 046	10 014	5 501	6 600
West Midlands	13 511	10 020	10 853	13 830	10 849	9 936	9 932	9 105	5 860	5 877
Yorkshire & the Humber	6 780	4 991	4 324	6 175	4 706	4 958	5 211	4 695	3 122	2 509
North East & North West	10 638	7 880	6 690	8 791	7 202	7 977	5 705	6 270	3 597	3 981
England	**114 435**	**85 670**	**88 511**	**114 805**	**79 288**	**75 452**	**77 328**	**69 821**	**46 938**	**52 363**
South Wales	2 413	1 794	1 529	2 524	1 818	2 008	1 289	1 542	757	1 218
North Wales	2 536	1 860	1 576	1 909	1 725	1 392	1 387	1 237	621	927
Wales	**4 949**	**3 654**	**3 105**	**4 433**	**3 543**	**3 400**	**2 676**	**2 779**	**1 378**	**2 145**
England and Wales	**119 384**	**89 324**	**91 616**	**119 238**	**82 831**	**78 852**	**80 004**	**72 599**	**48 317**	**54 507**

Crushed Rock										
Region	**1973**	**1977**	**1985**	**1989**	**1993**	**1997**	**2001**	**2005**	**2009**	**2014**
South West	30 195	19 990	25 850	38 213	29 193	22 945	26 518	22 238	17 206	21 439
South East, London, East of England	1 961	1 611	2 126	3 820	1 759	2 299	3 053	1 724	1 583	2 427
East Midlands	21 569	16 451	21 508	33 651	31 741	31 475	31 254	28 793	21 421	23 806
West Midlands	10 428	7 960	8 317	12 804	8 402	6 456	5 497	4 516	2 639	3 775
Yorkshire & the Humber	12 033	10 066	9 610	16 936	13 867	13 157	12 701	11 964	7 240	9 040
North East & North West	17 151	15 274	15 717	21 345	21 110	19 523	16 630	14 301	9 225	10 014
England	**93 337**	**71 352**	**83 128**	**126 769**	**106 072**	**95 855**	**95 652**	**83 535**	**59 314**	**70 501**
South Wales	10 182	10 306	9 532	13 137	14 739	12 912	10 021	10 873	8 185	7 825
North Wales	6 247	4 110	6 959	10 497	8 044	7 549	7 198	5 663	3 245	4 168
Wales	**16 429**	**14 416**	**16 491**	**23 634**	**22 783**	**20 461**	**17 219**	**16 536**	**11 430**	**11 994**
England and Wales	**109 766**	**85 768**	**99 619**	**150 403**	**128 855**	**116 316**	**112 872**	**100 071**	**70 744**	**82 495**

Total Primary Aggregates										
Region	**1973**	**1977**	**1985**	**1989**	**1993**	**1997**	**2001**	**2005**	**2009**	**2014**
South West	38 857	25 499	32 230	45 916	33 798	28 037	32 309	27 501	20 844	25 362
South East, London, East of England	62 621	48 342	51 431	66 165	40 407	38 474	43 696	36 197	26 803	31 901
East Midlands	35 753	26 990	32 467	49 612	45 019	42 789	41 300	38 807	26 922	30 407
West Midlands	23 939	17 980	19 170	26 634	19 251	16 392	15 429	13 621	8 500	9 651
Yorkshire & the Humber	18 813	15 057	13 934	23 111	18 573	18 115	17 912	16 659	10 362	11 549
North East & North West	27 789	23 154	22 407	30 136	28 312	27 500	22 335	20 570	12 823	13 994
England	**207 772**	**157 022**	**171 639**	**241 574**	**185 360**	**171 307**	**172 981**	**153 356**	**106 253**	**122 864**
South Wales	12 595	12 100	11 061	15 661	16 557	14 920	11 310	12 416	8 942	9 043
North Wales	8 783	5 970	8 535	12 406	9 769	8 941	8 585	6 899	3 866	5 095
Wales	**21 378**	**18 070**	**19 596**	**28 067**	**26 326**	**23 861**	**19 895**	**19 315**	**12 808**	**14 138**
England and Wales	**229 150**	**175 092**	**191 235**	**269 641**	**211 686**	**195 168**	**192 876**	**172 671**	**119 061**	**137 002**

Table D2 Comparison of consumption of primary aggregates, 1973, 1977, 1985, 1989, 1993, 1997, 2001, 2005, 2009 and 2014

Thousand tonnes

	Sand and Gravel – Land-Won and Marine Dredged									
Region	**1973**	**1977**	**1985**	**1989**	**1993**	**1997**	**2001**	**2005**	**2009**	**2014**
South West	8 796	6 330	7 304	8 994	5 415	5 498	6 263	5 803	3 471	3 828
South East, London, East of England	61 447	46 330	48 488	62 211	38 597	32 272	40 191	32 858	24 411	29 030
East Midlands	11 115	7 973	8 889	13 145	9 944	8 559	8 703	9 275	5 569	5 678
West Midlands	11 507	8 854	9 820	12 527	10 519	9 015	9 564	8 149	5 444	5 753
Yorkshire & the Humber	7 697	6 279	5 327	7 938	6 646	6 458	5 614	6 238	3 214	3 257
North East & North West	13 409	9 951	7 551	10 328	8 444	8 691	6 889	6 247	3 926	3 712
England	**113 971**	**85 717**	**87 379**	**115 143**	**79 565**	**70 493**	**77 225**	**68 571**	**46 035**	**51 259**
South Wales	2 755	1 890	1 689	2 636	1 934	1 963	1 198	1 628	724	1 258
North Wales	n.a.	1 254	957	1 450	1 226	900	977	811	544	815
Wales	**n.a.**	**3 144**	**2 646**	**4 086**	**3 160**	**2 863**	**2 175**	**2 439**	**1 268**	**2 073**
England and Wales	**n.a.**	**88 861**	**90 025**	**119 229**	**82 725**	**73 356**	**79 399**	**71 010**	**47 303**	**53 332**
	Crushed Rock									
Region	**1973**	**1977**	**1985**	**1989**	**1993**	**1997**	**2001**	**2005**	**2009**	**2014**
South West	22 156	13 537	16 775	25 821	21 697	14 763	19 140	17 197	12 238	15 167
South East, London, East of England	12 406	9 193	13 335	24 608	15 294	14 579	22 736	17 404	13 745	15 857
East Midlands	10 979	9 456	12 538	18 598	17 232	15 568	14 448	13 002	10 613	12 141
West Midlands	11 406	8 577	10 265	16 376	11 297	8 419	10 475	9 677	5 040	6 289
Yorkshire & the Humber	12 455	10 292	9 103	16 790	14 311	12 848	12 793	11 511	7 779	9 007
North East & North West	23 955	21 655	22 891	32 500	29 718	28 221	25 450	22 499	13 821	17 770
England	**93 357**	**72 710**	**84 907**	**134 693**	**109 549**	**94 398**	**105 042**	**91 289**	**63 236**	**76 230**
South Wales	10 009	9 621	8 401	12 426	13 619	10 103	8 284	8 537	5 886	5 892
North Wales	n.a.	2 233	4 092	5 660	4 615	2 733	3 663	2 520	2 694	1 983
Wales	**n.a.**	**11 854**	**12 493**	**18 086**	**18 234**	**12 836**	**11 947**	**11 057**	**8 580**	**7 875**
England and Wales	**n.a.**	**84 564**	**97 400**	**152 779**	**127 783**	**107 234**	**116 990**	**102 346**	**71 816**	**84 105**
	Total Primary Aggregates									
Region	**1973**	**1977**	**1985**	**1989**	**1993**	**1997**	**2001**	**2005**	**2009**	**2014**
South West	30 952	19 867	24 079	34 815	27 112	20 261	25 403	22 999	15 710	18 995
South East, London, East of England	73 853	55 523	61 823	86 819	53 891	46 851	62 927	50 263	38 155	44 888
East Midlands	22 094	17 429	21 427	31 743	27 176	24 127	23 151	22 277	16 183	17 819
West Midlands	22 913	17 431	20 085	28 903	21 816	17 434	20 039	17 827	10 484	12 043
Yorkshire & the Humber	20 152	16 571	14 430	24 728	20 957	19 306	18 407	17 749	10 993	12 265
North East & North West	37 364	31 606	30 442	42 828	38 162	36 912	32 339	28 746	17 747	21 481
England	**207 328**	**158 427**	**172 286**	**249 836**	**189 114**	**164 891**	**182 267**	**159 860**	**109 271**	**127 489**
South Wales	12 764	11 511	10 090	15 062	15 553	12 066	9 482	10 165	6 611	7 150
North Wales	n.a.	3 487	5 049	7 110	5 841	3 633	4 640	3 331	3 238	2 798
Wales	**n.a.**	**14 998**	**15 139**	**22 172**	**21 394**	**15 699**	**14 122**	**13 496**	**9 848**	**9 948**
England and Wales	**n.a.**	**173 425**	**187 425**	**272 008**	**210 508**	**180 590**	**196 389**	**173 356**	**119 120**	**137 438**

1. n.a. - not available.

Table D3 Comparison of permitted reserves of primary aggregates, 1973, 1977, 1985, 1989, 1993, 1997, 2001, 2005, 2009 and 2014

Million tonnes

					Sand and Gravel					
Region	**1973**	**1977**	**1985**	**1989**	**1993**	**1997**	**2001**	**2005**	**2009**	**2014**
South West	153	171	72	72	83	74	50	51	41	29
South East, London, East of England	442	n.a.	377	363	405	359	330	250	228	192
East Midlands	175	147	143	149	130	126	99	77	81	60
West Midlands	188	156	140	132	140	166	144	127	104	89
Yorkshire & the Humber	66	43	42	54	37	58	51	42	34	25
North East & North West	101	66	74	74	100	98	79	56	57	44
England	**1 125**	**n.a.**	**848**	**844**	**895**	**881**	**752**	**603**	**544**	**438**
South Wales	9	n.a.	2	0	10	14	8	3	2	3
North Wales	28	n.a.	20	16	20	26	23	15	19	16
Wales	**37**	**n.a.**	**22**	**16**	**30**	**40**	**31**	**18**	**21**	**19**
England and Wales	**1 162**	**n.a.**	**870**	**860**	**925**	**921**	**783**	**622**	**565**	**457**
					Crushed Rock					
Region	**1973**	**1977**	**1985**	**1989**	**1993**	**1997**	**2001**	**2005**	**2009**	**2014**
South West	1 788	1 842	1 089	1 393	1 310	1 435	1 426	920	868	818
South East, London, East of England	n.a.[1]	n.a.	31	42	71	57	88	62	62	57
East Midlands	1 733	1 543	1 773	1 896	1 957	2 091	2 166	1 375	1 303	919
West Midlands	228	267	241	235	216	465	309	306	312	269
Yorkshire & the Humber	522	n.a.	257	413	531	550	471	347	301	239
North East & North West	1 162	1 011	809	717	1 002	705	605	545	544	478
England	**5 433**	**n.a.**	**4 200**	**4 696**	**5 087**	**5 303**	**5 065**	**3 556**	**3 391**	**2 779**
South Wales	656	n.a.	492	419	581	651	648	499	419	512
North Wales	619	n.a.	1 117	772	433	399	505	205	172	158
Wales	**1 275**	**n.a.**	**1 609**	**1 191**	**1 014**	**1 050**	**1 153**	**705**	**591**	**669**
England and Wales	**6 708**	**n.a.**	**5 809**	**5 887**	**6 101**	**6 353**	**6 218**	**4 260**	**3 982**	**3 448**
					Total Primary Aggregates					
Region	**1973**	**1977**	**1985**	**1989**	**1993**	**1997**	**2001**	**2005**	**2009**	**2014**
South West	1 941	2 013	1 161	1 465	1 393	1 509	1 476	971	909	847
South East, London, East of England	n.a.	n.a.	408	405	476	416	418	312	291	248
East Midlands	1 908	1 690	1 916	2 045	2 087	2 217	2 265	1 452	1 384	978
West Midlands	416	423	381	367	356	631	453	433	415	358
Yorkshire & the Humber	588	n.a.	299	467	568	608	522	389	335	264
North East & North West	1 263	1 077	883	791	1 102	803	684	601	601	521
England	**n.a.**	**n.a.**	**5 048**	**5 540**	**5 982**	**6 184**	**5 817**	**4 159**	**3 935**	**3 217**
South Wales	665	n.a.	494	419	591	665	655	502	421	515
North Wales	647	n.a.	1 137	788	453	425	528	220	192	174
Wales	**1 312**	**n.a.**	**1 631**	**1 207**	**1 044**	**1 090**	**1 184**	**723**	**612**	**689**
England and Wales	**n.a.**	**n.a.**	**6 679**	**6 747**	**7 026**	**7 274**	**7 001**	**4 882**	**4 547**	**3 906**

1. n.a. - not available.
2. n.a.[1] - not available but assumed to be negligible.
3. Reserve figures for AM2005 onwards are not directly comparable to earlier years. From 2005, 'reserves' in dormant sites and for non-aggregate uses were excluded.

Table E1 Comparison of sales of primary aggregates 2001, 2005, 2009 and 2014

Thousand tonnes

	Sand and Gravel – Land-Won and Marine Dredged			
Region	**2001**	**2005**	**2009**	**2014**
South West	5 791	5 264	3 638	3 923
South East	19 669	15 526	10 992	12 484
London	4 562	5 073	4 239	5 054
East of England	16 412	13 875	9 989	11 936
East Midlands	10 046	10 014	5 501	6 600
West Midlands	9 932	9 105	5 860	5 877
North West	3 544	3 770	2 276	2 571
Yorkshire & the Humber	5 211	4 695	3 122	2 509
North East	2 162	2 500	1 321	1 410
England	**77 328**	**69 821**	**46 938**	**52 363**
South Wales	1 289	1 542	757	1 218
North Wales	1 387	1 237	621	927
Wales	**2 676**	**2 779**	**1 378**	**2 145**
England and Wales	**80 004**	**72 599**	**48 317**	**54 507**
		Crushed Rock		
Region	**2001**	**2005**	**2009**	**2014**
South West	26 518	22 238	17 206	21 439
South East	2 398	1 238	1 294	1 795
London				
East of England	655	486	289	632
East Midlands	31 254	28 793	21 421	23 806
West Midlands	5 497	4 516	2 639	3 775
North West	10 034	8 644	5 897	5 849
Yorkshire & the Humber	12 701	11 964	7 240	9 040
North East	6 596	5 657	3 328	4 165
England	**95 652**	**83 535**	**59 314**	**70 501**
South Wales	10 021	10 873	8 185	7 825
North Wales	7 198	5 663	3 245	4 168
Wales	**17 219**	**16 536**	**11 430**	**11 994**
England and Wales	**112 872**	**100 071**	**70 744**	**82 495**
		Total Primary Aggregates		
Region	**2001**	**2005**	**2009**	**2014**
South West	32 309	27 501	20 844	25 362
South East	22 067	16 763	12 286	14 279
London	4 562	5 073	4 239	5 054
East of England	17 066	14 361	10 278	12 568
East Midlands	41 300	38 807	26 922	30 407
West Midlands	15 429	13 621	8 500	9 651
North West	13 578	12 413	8 174	8 419
Yorkshire & the Humber	17 913	16 659	10 362	11 549
North East	8 758	8 157	4 649	5 575
England	**172 981**	**153 356**	**106 253**	**122 864**
South Wales	11 310	12 416	8 942	9 043
North Wales	8 585	6 899	3 866	5 095
Wales	**19 895**	**19 315**	**12 808**	**14 138**
England and Wales	**192 876**	**172 671**	**119 061**	**137 002**

Table E2 Comparison of consumption of primary aggregates 2001, 2005, 2009 and 2014

Thousand tonnes

	Sand and Gravel – Land-Won and Marine Dredged			
Region	**2001**	**2005**	**2009**	**2014**
South West	6 263	5 803	3 471	3 828
South East	19 524	13 241	10 380	12 071
London	7 110	6 463	5 283	5 683
East of England	13 557	13 154	8 748	11 276
East Midlands	8 703	9 275	5 569	5 678
West Midlands	9 564	8 149	5 444	5 753
North West	4 081	3 540	1 967	2 087
Yorkshire & the Humber	5 614	6 238	3 214	3 257
North East	2 808	2 707	1 959	1 625
England	**77 225**	**68 571**	**46 035**	**51 259**
South Wales	1 198	1 628	724	1 258
North Wales	977	811	544	815
Wales	**2 175**	**2 439**	**1 268**	**2 073**
England and Wales	**79 399**	**71 010**	**47 303**	**53 332**
	Crushed Rock			
Region	**2001**	**2005**	**2009**	**2014**
South West	19 140	17 197	12 238	15 167
South East	14 603	7 935	5 383	7 126
London	2 453	3 892	4 086	3 890
East of England	5 680	5 577	4 276	4 841
East Midlands	14 448	13 002	10 613	12 141
West Midlands	10 475	9 677	5 040	6 289
North West	18 058	16 631	10 299	13 276
Yorkshire & the Humber	12 793	11 511	7 779	9 007
North East	7 392	5 868	3 522	4 494
England	**105 042**	**91 289**	**63 236**	**76 230**
South Wales	8 284	8 537	5 886	5 892
North Wales	3 663	2 520	2 694	1 983
Wales	**11 947**	**11 057**	**8 580**	**7 875**
England and Wales	**116 990**	**102 346**	**71 816**	**84 105**
	Total Primary Aggregates			
Region	**2001**	**2005**	**2009**	**2014**
South West	25 404	22 999	15 710	18 995
South East	34 127	21 176	15 762	19 197
London	9 563	10 355	9 369	9 573
East of England	19 237	18 732	13 024	16 118
East Midlands	23 151	22 277	16 183	17 819
West Midlands	20 039	17 827	10 484	12 043
North West	22 139	20 171	12 266	15 363
Yorkshire & the Humber	18 407	17 749	10 993	12 265
North East	10 201	8 575	5 481	6 118
England	**182 267**	**159 860**	**109 271**	**127 489**
South Wales	9 482	10 165	6 611	7 150
North Wales	4 640	3 331	3 238	2 798
Wales	**14 122**	**13 496**	**9 848**	**9 948**
England and Wales	**196 389**	**173 356**	**119 120**	**137 438**

Table E3 Comparison of permitted reserves of primary aggregates 2001, 2005, 2009 and 2014

Million tonnes

	Sand and Gravel			
Region	**2001**	**2005**	**2009**	**2014**
South West	50	51	41	29
South East	142	81	79	67
London	3	3	2	1
East of England	185	166	147	124
East Midlands	99	77	81	60
West Midlands	144	127	104	89
North West	58	41	42	25
Yorkshire & the Humber	51	42	34	25
North East	21	15	15	18
England	**752**	**603**	**544**	**438**
South Wales	8	3	2	3
North Wales	23	15	19	16
Wales	**31**	**18**	**21**	**19**
England and Wales	**783**	**622**	**565**	**457**
	Crushed Rock			
Region	**2001**	**2005**	**2009**	**2014**
South West	1 386	920	868	818
South East	73	54	59	52
London				
East of England	15	8	3	5
East Midlands	2 166	1 375	1 303	919
West Midlands	309	306	312	269
North West	346	302	327	258
Yorkshire & the Humber	471	347	301	239
North East	259	244	217	220
England	**5 023**	**3 556**	**3 391**	**2 779**
South Wales	648	499	419	512
North Wales	505	205	172	158
Wales	**1 153**	**705**	**591**	**669**
England and Wales	**6 176**	**4 260**	**3 982**	**3 448**
	Total Primary Aggregates			
Region	**2001**	**2005**	**2009**	**2014**
South West	1 436	971	909	847
South East	214	135	138	119
London	3	3	2	1
East of England	200	175	151	128
East Midlands	2 265	1 452	1 384	978
West Midlands	453	433	415	358
North West	404	343	369	283
Yorkshire & the Humber	521	389	335	264
North East	280	258	232	238
England	**5 776**	**4 159**	**3 935**	**3 217**
South Wales	655	502	421	515
North Wales	528	220	192	174
Wales	**1 184**	**723**	**612**	**689**
England and Wales	**6 960**	**4 882**	**4 547**	**3 906**

1. Reserve figures for AM2005 onwards are not directly comparable to earlier years. From 2005, ‘reserves’ in dormant sites and for non-aggregate uses were excluded

.

Appendix F - Survey forms A and B

Department for Communities and Local Government

Aggregate Minerals Survey 2014 for England and Wales

Llywodraeth Cymru Welsh Government

FORM A: Quarries producing land-won natural aggregates[1], and Marine Wharves for sand and gravel and crushed rock during 2014

BACKGROUND INFORMATION

The Aggregate Minerals (AM) surveys, based at four-yearly intervals since 1973, provide an in-depth and up-to-date understanding of regional and national sales, consumption, distribution and permitted reserves of natural aggregates. The information is collected from aggregates producers for collation at Mineral Planning Authority (MPA), regional and national levels. The most recent survey was for the base year 2009 (AM2009) and the collated results can be viewed and downloaded free from www.mineralsUK.com. This questionnaire relates to aggregates sales, distribution and reserves between January 1 and December 31, 2014. The national collation of this Survey is being undertaken by the British Geological Survey for the Department of Communities and Local Government (DCLG) and the Welsh Government. To simplify the Survey the questions have been harmonised with the statutory Annual Minerals Raised Inquiry (AMRI) undertaken on behalf of DCLG by the Office for National Statistics.

The results of the AM2014 Survey will be used to monitor policies for the supply of aggregates

CONFIDENTIALITY

All sales and reserves information provided by respondents will be treated as strictly confidential and will not pass beyond the officer who the Chief Planning Officer of the Authority designates to receive and process it. This includes Aggregates Working Party (AWP) Secretaries. It will not be used unless it is first collated in such a way that individual company figures cannot be identified or unless consent of the company concerned is first obtained. The collated information may then be used for the purposes of the work of DCLG, the AWPs or for mineral planning purposes by the Authority.

Completed forms should be returned either by email or in envelopes marked 'Confidential' to:

MPA contact and address:

Please return the completed form no later than 31st July 2015

[1] Aggregates – Granular material used in construction. Aggregates can be natural, recycled or manufactured. This form relates to natural aggregates, both primary and secondary (or by-product) aggregates, excavated and sold for the first time.

BGS HELPLINE: If you have any queries regarding this form please call or email

Mr Tom Bide - 0115 936 3273 - tode@bgs.ac.uk

NON-CONFIDENTIAL

SITE DETAILS

SD1	Operating company	
SD2	Quarry / wharf name	
SD3	Address of quarry or wharf	
SD4		
SD5	Town	
SD6	County	
SD7	Postcode	
SD8	Telephone	
SD9	Fax	
SD10	Email of person responsible for completing the form	
	Name of person responsible for filling in form	
	Date	Tel:

GUIDANCE NOTES - please read these notes before completing the form. This form applies to:

(1) Quarries / other sites producing land-won natural aggregates either as a principal activity or as a subsidiary activity, such as a by-product of building stone, silica sand, china clay, ball clay, slate, clay, shale and coal extraction.

(2) Marine wharves at which marine-dredged sand and gravel and / or crushed rock are landed.

(3) A distinction is made between 'inactive' sites and 'dormant' sites. The latter is defined in the Environment Act 1995 as a mineral site where no mineral development has taken place to any substantial extent in, on, or under the site at any time in the period 22nd February 1982 and 6th June 1995.

(4) Complete only Question 2 and Question 3 for these materials.

TM1 Type of mineral working (please tick relevant box)

- Quarry (1) ☐
- Marine wharf (2) ☐

TM2 Association status: *(please tick relevant box(es))*

- Mineral Products Association member ☐
- British Aggregates Association member ☐

TM3 Status of quarry / wharf / other site: *(please tick relevant box)*

- **Active:** In production, including from stockpiles, for some time during 2014 ☐
- **Inactive:** Worked in the past and still containing permitted reserves [Complete only Question 1 for permitted reserves] (3) ☐
- **Inactive:** Planning permission received, but yet to be worked [Complete only Question 1 for permitted reserves] ☐
- **Dormant:** As identified under the Environment Act 1995 (3) [Complete only Question 1 for permitted reserves] ☐
- **Closed** and containing no workable permitted reserves [Complete only site details] ☐

TM4 Mineral type: *(please tick relevant box(es))*

- ☐ Sand
- ☐ Sand and Gravel
- ☐ Igneous rock (including metamorphic)
- ☐ Limestone / Dolomite
- ☐ Sandstone (includes greywacke, gritstone and quartzite)
- ☐ Chalk
- ☐ Ironstone
- ☐ China clay aggregate (sand or 'stent') (4)
- ☐ Ball clay aggregate (sand) (4)
- ☐ Slate waste sold as aggregate (4)
- ☐ Colliery spoil sold as aggregate (4)
- ☐ 'Clay' and 'shale' sold as aggregate (4)

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To be completed by MPA:

MPA1	MPA name	
MPA2	AWP region	

NGR1	National Grid Reference (of centre of working, e.g. NG 456 789)			
		Code	Easting	Northing

INFORMATION ABOUT THE SITE

DS1	Please tick here if the site is a borrow pit (a temporary mineral working to supply aggregate for a specific construction project)	☐
DS2	Please tick here if the site has received planning permission for an extension in 2014	☐
DS3	Please tick here if this is a new quarry or wharf granted planning permission in 2014	☐

Please tick as appropriate if the area for extraction within the planning permission is wholly or partly within any of the following environmental designations.
The site may fall within more than one designation:

DS4	National Park (including The Broads and The New Forest)	☐
DS5	AONB	☐
DS6	SSSI/NNR	☐
DS7	SAC/SPA	☐
DS8	Green Belt	☐
DS9	Date current planning permission for extraction expires (dd/mm/yyyy)	

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1. PERMITTED RESERVES (AT QUARRIES ONLY)

DEFINITIONS

Permitted Reserves - Estimated reserves of aggregate minerals, including stockpiles, with planning permission that are saleable for aggregates and non-aggregate purposes at 31st December 2014. The figure should estimate **net saleable** reserves, taking account of likely losses during quarry design, extraction and processing.

Also **include** reserves at Inactive and Dormant sites. A dormant site is defined in the Environment Act 1995 as a mineral site where no mineral development has taken place to any substantial extent in, on, or under the site at any time in the period 22nd February 1982 and 6th June 1995.

GUIDANCE NOTES - please read these notes before completing the form.

(1) Where possible estimate the amount of sand or gravel.

(2) Where not known this can be estimated on the basis of typical proportions of sales of aggregate to non-aggregate.

Sand and Gravel Reserves			**Tonnes**	
1.1	Sand suitable for concreting	a		
1.2	Other sand (including building and asphalting sand)	b		
1.3	Total sand (a+b)[1]			
1.4	Total gravel[1]			
1.5	Total sand and gravel undifferentiated, where not included above			
1.6	*Estimated % of total reserves allocated for non-aggregate use*[2]			%

Crushed Rock Reserves		**Tonnes**	*1.12 Estimated % of total reserves allocated for non-aggregate use*[2]
1.7	Limestone / Dolomite		%
1.8	Igneous and metamorphic rock		%
1.9	Sandstone (including gritstone, greywacke & quartzite)		%
1.10	Chalk		%
1.11	Ironstone		%

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2. SALES BY PRODUCT

2.1 Sand and Gravel (Land won and marine-dredged)

INSTRUCTIONS

The term sand and gravel includes 'solid' sandstones and conglomerates that are loosely consolidated or weakly cemented and that are processed to produce sand and gravel, e.g. 'Sherwood Sandstone / Bunter' type sandstones and pebble beds. For sales of sand (fine aggregate) derived from crushing hard rocks, e.g. Carboniferous type sandstones, please return under question 2.2.7.

GUIDANCE NOTES - please read these notes before completing the form (Section 2.1).

2.1 Questions 2.1.1 - 2.1.9 should be filled in for sales of sand and gravel excavated from a quarry (including as a result of ball clay or china clay extraction), or sales only of marine dredged (from English and Welsh waters) sand and gravel landed at a wharf. **For quarries, exclude** minerals produced elsewhere in England and Wales and brought to the site for processing. Where aggregate is taken to another site for processing please estimate the sales attributable to the actual excavated site. **For wharves, exclude** sand and gravel that has been transhipped to another wharf in England and Wales. (The receiving wharf will be completing these questions).

2.1.3 Including sand used in ready-mixed concrete, precast concrete products e.g. concrete bricks, blocks, tiles, pavers and pipes.

2.1.5 Including gravel used in ready-mixed concrete, precast concrete products e.g. concrete bricks, blocks, tiles, pavers and pipes.

2.1.6 Other aggregate uses include pipebedding, drainage media/layers.

2.1.7 Including 'as dug' material (hoggin).

2.1.9 Other non-aggregate / industrial uses for sand (and gravel) include for glassmaking, foundry use, chemicals, ceramics, water filtration, brickmaking (body / facing sand and calcium silicate bricks), sports and horticultural uses.

2.1.10 For wharves landing sand and gravel originating from outside English and Welsh waters only.

Sand for aggregate use

		Tonnes
2.1.1	Sand for asphalt	
2.1.2	Sand for use in mortar (building or soft sand)	
2.1.3	Sand for concreting or sharp sand	

Gravel for aggregate use

		Tonnes
2.1.4	Gravel for asphalt	
2.1.5	Gravel for concrete aggregate	
2.1.6	Other screened and graded gravels	

Sand and Gravel for aggregate use

		Tonnes
2.1.7	Other sand and gravel e.g. for constructional fill	
2.1.8	**Total for all aggregate use [T1]**	

Sand and Gravel for non-aggregate uses

		Tonnes
2.1.9	**Total for all non-aggregate uses**	

2.1.10 **Landings of sand and gravel from OUTSIDE English and Welsh waters (wharves only)**

GUIDANCE NOTES

Please provide the tonnage of total sales for aggregate use originating from each country.

Country of origin	Landings of aggregate Tonnes
Scotland	
Northern Ireland	
Republic of Ireland	
France	
Norway	
The Netherlands	
Belgium	
Denmark	
Other countries	
Unknown	
Total tonnage	

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2. SALES BY PRODUCT

2.2 Crushed Rock

(Quarries in England and Wales and Wharves at which hard rock from outside England and Wales is landed)

Select mineral type: *(please tick box)*

- ☐ Igneous rock (including metamorphic)
- ☐ Limestone / Dolomite
- ☐ Sandstone
- ☐ Chalk
- ☐ Ironstone
- ☐ China clay 'stent' (unkaolinised rock)
- ☐ Slate waste
- ☐ Colliery spoil (minestone)
- ☐ 'Clay' and 'shale' for construction

If more than one mineral type, please print an extra copy of Questions 2 and 3, for each, and attach onto back of form.

DEFINITIONS

Limestone / Dolomite includes high magnesium limestone but not chalk.
Igneous rock includes andesite, basalt, diorite, dolerite, gabbro, gneiss, granite, granulite, hornfels, microgranite, rhyolite, schist, syenite, trachyte and tuff.
Sandstone includes greywacke, gritstone and quartzite.
Ironstone formerly of interest as a source of iron.
China clay aggregate (unkaolinised rock, 'stent') produced from the extraction and processing of china clay (kaolin). (Note: Sand and gravel sold as aggregate from china clay extraction should be entered under Q2.1, page 5).
Slate waste sold as aggregate (i.e. in construction / fill).
Colliery spoil (minestone) sold as aggregate (i.e. in construction / fill).
'Clay' and 'shale' sold as aggregate (i.e. in construction / fill).

GUIDANCE NOTES - please read these notes before completing the form (Section 2.2).

2.2	Questions 2.2 should be filled in for sales of crushed rocks excavated from the quarry or landed at the wharf. **Exclude** material produced elsewhere within England and Wales and brought to the site for processing. Where aggregate is taken to another site for processing please estimate the sales attributable to the actual excavated site. **For wharves, exclude** material that has been transhipped to another wharf in England and Wales. (The receiving wharf will be completing these questions).
2.2.3	Includes granular sub-base (Types 1 and 2) for foundation work.
2.2.6	Including coarse and fine aggregate used in ready-mixed concrete, precast concrete products e.g. concrete bricks, blocks, tiles, pavers and pipes.
2.2.7	Including pipebedding, drainage layers.
2.2.9	Crushed and / or 'as dug' material; excluding Type 1 and 2 sub-base.
2.2.11	Building stone includes dimension, ornamental, monumental and garden stone.
2.2.13/ 2.2.14	Where the product is calcined limestone or dolomite (lime / dolime) please report figure expressed as tonnage of original material used. Tonnage of lime, dolime and hydrated lime can be recalculated to carbonate by multiplying by 1.78, 2.16 and 1.35 respectively.
2.2.14	Including lime/dolime production (other than for steel manufacture), chemicals, fillers, FGD, powders, glassmaking and animal feed.

		Tonnes
2.2.1	Crushed rock for manufacturing asphalt on site i.e. coated (excluding weight of binder)	
2.2.2	Crushed rock for manufacturing asphalt off site (including third party operations)	
2.2.3	Uncoated roadstone (Type 1 and 2 materials)	
2.2.4	Uncoated roadstone (surface dressing chippings)	
2.2.5	Rail ballast	
2.2.6	For concrete aggregate including third party operations on or off site	
2.2.7	Other screened and graded aggregates	
2.2.8	Armourstone and gabion stone	
2.2.9	Other constructional uses, including fill	
2.2.10	**Total for aggregate use [T2]**	

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2.2 Crushed Rock (continued...)

Non-aggregate uses

		Tonnes
2.2.11	Building stone (excluding reconstituted stone)	
2.2.12	Cement manufacture	
2.2.13	Flux in iron and steel manufacture	
2.2.14	All other industrial uses	
2.2.15	Agricultural use on the land and horticulture	
2.2.16	**Total for all non-aggregate uses**	

2.2.17 **Landings of crushed rock aggregate from OUTSIDE England and Wales (wharves only)**

GUIDANCE NOTES
Please provide the relative proportion of total sales for aggregate use (reported in Q2.2.10 [T2]) originating from each country.

Country of origin	Landings of aggregate Percent
Scotland	%
Northern Ireland	%
Republic of Ireland	%
France	%
Norway	%
Other countries	%
Unknown	%
	100%

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3. SALES BY DESTINATION **From quarries; marine dredged landings; and aggregates landed from outside England and Wales**

Sales by Destination for **Aggregate Use only**

If more than one mineral type, please print an extra copy of Questions 2 and 3, for each, and attach onto back of form.

GUIDANCE NOTES

This information is **very** important for calculating inter-regional / sub-regional flows and consumption of aggregates. It is appreciated that sales destination will not always be known particularly for **collected** sales. For collect sales where the destination is not known please allocate to the sub-region where the quarry / wharf is located. **Please make estimates wherever possible.**

Estimate **for aggregate sales only** the quantities delivered to initial destinations (sub-region), including those value-added sites (such as asphalt, ready-mix and precast concrete plants), during 2014 by **transport method** and **area** for aggregates excavated and / or sold from the site.

Aggregate sales should equal total reported in either questions 2.1.8 [T1] for sand and gravel or 2.2.10 [T2] for crushed rock.

Principal Mode(s) of Transport - An estimate by % (which totals to 100% across road, rail and water) is acceptable if precise sales are not known. Please indicate whether **tonnes or percent**. Include only the principal mode of transport.

(1) Where all deliveries are by road just tick

For a map of the Counties and Unitary Authorities comprising each Sub-Region please see map on page 11.

		Tonnes		Tonnes or percent (delete as appropriate)			
		Sales of aggregate		Modes of transport			
Sub-Region		**Sand and gravel**	**Crushed rock**	**Road[1]**	**Rail**	**Water**	
EEN1	Bedfordshire (Central Bedfordshire, Bedford and Luton)						East of England
EEN2	Cambridgeshire and Peterborough						
EEN3	Essex, Southend and Thurrock						
EEN4	Hertfordshire						
EEN5	Norfolk						
EEN6	Suffolk						
EEN7	Unknown but somewhere in the East of England						
EMD1	Derbyshire and Peak District National Park						East Midlands
EMD2	Leicestershire and Rutland						
EMD3	Lincolnshire						
EMD4	Northamptonshire						
EMD5	Nottinghamshire						
EMD6	Unknown but somewhere in the East Midlands						
LON1	East London						London
LON2	West London						
LON3	Unknown but somewhere in Greater London						
NEA1	Durham						North East
NEA2	Northumberland and the National Park						
NEA3	Tees Valley						
NEA4	Tyne and Wear						
NEA5	Unknown but somewhere in the North East						
NWE1	Cheshire (Cheshire West and Chester, and Cheshire East)						North West
NWE2	Cumbria and Lake District National Park						
NWE3	Greater Manchester, Merseyside, Halton & Warrington						
NWE4	Lancashire, Blackpool and Blackburn with Darwen						
NWE5	Unknown but somewhere in the North West						

CONTINUED OVERLEAF....

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3. SALES BY DESTINATION (continued…)

		Tonnes		Tonnes or percent (delete as appropriate)			
		Sales of aggregate		Modes of transport			
Sub-Region		**Sand and gravel**	**Crushed rock**	**Road[1]**	**Rail**	**Water**	
SEA1	Berkshire						South East
SEA2	Buckinghamshire and Milton Keynes						
SEA3	East Sussex and Brighton and Hove						
SEA4	Hampshire and the Isle of Wight						
SEA5	Kent and Medway						
SEA6	Oxfordshire						
SEA7	Surrey						
SEA8	West Sussex						
SEA9	Unknown but somewhere in the South East						
SWE1	West Of England (Avon)						South West
SWE2	Cornwall and Isles of Scilly						
SWE3	Devon, Plymouth, Torbay and Dartmoor National Park						
SWE4	Dorset						
SWE5	Gloucestershire						
SWE6	Somerset and Exmoor National Park						
SWE7	Wiltshire and Swindon						
SWE8	Unknown but somewhere in the South West						
WMD1	Herefordshire						West Midlands
WMD2	Shropshire and Telford and Wrekin						
WMD3	Staffordshire						
WMD4	Warwickshire						
WMD5	Worcestershire						
WMD6	Remainder of West Midlands						
WMD7	Unknown but somewhere in the West Midlands						
YHU1	Humber (East Riding, North Lincolnshire and North East Lincolnshire)						Yorkshire and the Humber
YHU2	North Yorks, Yorkshire Dales and North York Moors National Parks						
YHU3	South Yorkshire						
YHU4	West Yorkshire						
YHU5	Unknown but somewhere in Yorks & the Humber						

PLEASE PROVIDE TOTALS OVERLEAF…

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3. SALES BY DESTINATION (continued…)

		Tonnes		Tonnes or percent (delete as appropriate)			
		Sales of aggregate		Modes of transport			
Sub-Region		**Sand and gravel**	**Crushed rock**	**Road[1]**	**Rail**	**Water**	
WLS1	North East Wales						North Wales
WLS2	North West Wales						
WLS3	Unknown but somewhere in North Wales						
WLS4	South East Wales						South Wales
WLS5	Remainder of South Wales						
WLS6	Unknown but somewhere in South Wales						
SCT1	Scotland						Elsewhere
NIR1	Northern Ireland						
RPI1	Republic of Ireland						
EUR1	Mainland Europe						
UNK1	Unknown destination						
3.50	**Total tonnage** (totals should equal total in either question 2.1 [T1] or 2.2 [T2])						

MAP OF AGGREGATE MINERALS SURVEY SUB-REGIONS AND THE AUTHORITIES THEY INCLUDE

Sub Regions

1 Northumberland and the National Park
2 Tyne & Wear,
3 Durham
4 Tees Valley
5 Cumbria
6 Lancashire
7 Greater Manchester, Merseyside, Halton & Warrington
8 Cheshire (Cheshire West and Chester, Cheshire East)
9 North Yorkshire, Yorkshire Dales and North York Moors Parks
10 West Yorkshire
11 (Humber) East Riding, North Lincolnshire and North East Lincolnshire
12 South Yorkshire
13 Derbyshire and Peak District National Park
14 Nottinghamshire
15 Lincolnshire
16 Leicestershire and Rutland
17 Northamptonshire
18 Staffordshire
19 Shropshire
20 Remainder of West Midlands
21 Warwickshire
22 Worcestershire
23 Herefordshire
24 Norfolk
25 Cambridgeshire and Peterborough
26 Bedfordshire (Central Bedfordshire, Bedford and Luton)
27 Suffolk
28 Essex, Southend and Thurrock
29 Hertfordshire
30 Buckinghamshire and Milton Keynes
31 Oxfordshire
32 Berkshire
33 Hampshire and the Isle of Wight
34 Surrey
35 Kent and Medway
36 East Sussex and Brighton & Hove
37 West Sussex
38 West London
39 East London
40 Gloucestershire
41 Avon
42 Wiltshire
43 Somerset
44 Dorset
45 Devon
46 Cornwall
47 North East Wales
48 North West Wales
49 South East Wales
50 Remainder of South Wales

Department for Communities and Local Government

Aggregate Minerals Survey 2014 for England and Wales

Llywodraeth Cymru Welsh Government

FORM B: Mineral Sites Granted[1], Refused[2], Withdrawn[3] and Awaiting[4] Planning Permission, 2010-2014

To be completed by Mineral Planning Authority (MPA)

MPA name					
Completed by					
Date		Email		Tel	
AWP					

Please read Guidance Notes at the bottom before completing the form.

Completed forms should be returned by email to Tom Bide (tode@bgs.ac.uk) and copied to the relevant AWP Secretary for collation.

Please return the completed form no later than 31st July 2015.

Sites granted[1] planning permission for aggregates extraction, 2010-2014

Year		Site Name	Mineral (5)	NGR (6)	Site Type (7)	Reserves (tonnes)	Nat. Park (8)	AONB (8)	SSSI (8)	SPA / SAC (8)	Green Belt (8)	Site lies inside area allocated for mineral extraction in the Plan (9)	Permitted annual level of production from the site (tonnes)
2010	1												
	2												
	3												
	4												
	5												
2011	1												
	2												
	3												
	4												
	5												
2012	1												
	2												
	3												
	4												
	5												
2013	1												
	2												
	3												
	4												
	5												
2014	1												
	2												
	3												
	4												
	5												
							Please enter 1 in appropriate box(es)						

Sites refused[2] planning permission for aggregates extraction, 2010-2014

Year		Site Name	Mineral (5)	NGR (6)	Site Type (7)	Reserves (tonnes)	Nat. Park (8)	AONB (8)	SSSI (8)	SPA / SAC (8)	Green Belt (8)	Site lies inside area allocated for mineral extraction in the Plan (9)	Proposed annual level of production from the site (tonnes)
2010	1												
	2												
	3												
	4												
	5												
2011	1												
	2												
	3												
	4												
	5												
2012	1												
	2												
	3												
	4												
	5												
2013	1												
	2												
	3												
	4												
	5												
2014	1												
	2												
	3												
	4												
	5												

Please enter 1 in appropriate box(es)

Sites whose planning permission application for aggregates extraction has been withdrawn[3], 2010-2014

Year		Site Name	Mineral (5)	NGR (6)	Site Type (7)	Reserves (tonnes)	Nat. Park (8)	AONB (8)	SSSI (8)	SPA / SAC (8)	Green Belt (8)	Site lies inside area allocated for mineral extraction in the Plan (9)	Proposed annual level of production from the site (tonnes)
2010	1												
	2												
	3												
	4												
	5												
2011	1												
	2												
	3												
	4												
	5												
2012	1												
	2												
	3												
	4												
	5												
2013	1												
	2												
	3												
	4												
	5												
2014	1												
	2												
	3												
	4												
	5												

Please enter 1 in appropriate box(es)

Sites currently awaiting[4] decision on planning permission for aggregates extraction at 31/12/2014

Year		Site Name	Mineral (5)	NGR (6)	Site Type (7)	Reserves (tonnes)	Nat. Park (8)	AONB (8)	SSSI (8)	SPA / SAC (8)	Green Belt (8)	Site lies inside area allocated for mineral extraction in the Plan (9)	Proposed annual level of production from the site (tonnes)
2010	1												
	2												
	3												
	4												
	5												
2011	1												
	2												
	3												
	4												
	5												
2012	1												
	2												
	3												
	4												
	5												
2013	1												
	2												
	3												
	4												
	5												
2014	1												
	2												
	3												
	4												
	5												

Please enter 1 in appropriate box(es)

GUIDANCE NOTES - please read these notes before completing the form

1. Subject to all legal (including Section 106 (S106)) Agreements being made. For the calendar year periods 1/1/2010 to 31/12/2014 (inclusive).

2. If a refusal (e.g. in 2010) goes to appeal and is rejected (e.g. in 2012) only enter for the final rejection.
3. Only include sites where a formal application for planning permission has been made and then withdrawn. Enter only year withdrawn.
   If a withdrawn application is re-submitted and approved / refused only enter for the final approval / refusal.

4. Only include sites where a complete application for planning permission has been received but no decision has yet to be reached.
   This includes planning permissions awaiting a Section 106 (S106) Agreement. Enter for the year complete application received.

5. Mineral. Please choose from the following list:
   - Igneous rock (including metamorphic rock)
   - Limestone / Dolomite
   - Sandstone (includes greywacke, gritstone and quartzite)
   - Chalk
   - Ironstone
   - Sand
   - Sand and gravel
   - Slate
   - Shale (for construction use only)
6. National Grid Reference (NGR) - of centre of site e.g. NG 456 789.
7. Site type. Choose from:
   - Extension - lateral/vertical
   - Borrow pit
   - New quarry (excluding borrow pit)

   Excludes changes in permission for an increase in output and / or extension of time where these do not lead to an increase / decrease in reserves.
8. Please enter 1 if the area for extraction within the planning application is **wholly or partly** within the listed designation. A site may fall within more than one designation e.g. AONB and SSSI, and SSSI and SPA/SAC. National Parks includes The Broads and The New Forest.
9. Please enter a 1 if the area of extraction within the planning application is **wholly or partly** within an area allocated for mineral extraction (allocated site, preferred area, area of search) in the MPAs development plan.
10. If required insert extra rows.
11. Questions can be directed to Tom Bide at the British Geological Survey. Tel: 0115 936 3273 Email: tode@bgs.ac.uk

Appendix G - Glossary of terms and abbreviations

Active/Inactive	Sites are described as *active* where material was produced at any time during 2014 and as *inactive* when the site was not in production during that period. Inactive sites include those that have been worked in the past and those that have yet to begin. The term 'inactive' now replaces the term 'dormant' used in previous surveys as the term 'dormant' has acquired a more specific meaning under the terms of the Planning & Compensation Act 1991 and the Environment Act 1995.
Aggregate	Granular or particulate material which is suitable for use (on its own or with the addition of cement, lime or bituminous binder) in construction as concrete, mortar, roadstone, asphalt or drainage courses, or for use as constructional fill or railway ballast (also referred to as 'construction aggregates').
Aggregate mineral	Naturally-occurring material suitable for aggregate uses.
Primary aggregates	Aggregate produced from naturally-occurring mineral deposits and used for the first time.
Secondary aggregates	This term is becoming increasingly unclear and requires more rigorous definition. Aggregate which originates as a waste of other quarrying and mining operations, or from industrial processes (e.g. colliery waste or minestone, blast furnace slag, power station ash, china clay waste, slate waste), but excluding chalk and clay/shale worked primarily for aggregate purposes.
Aggregate sales	The tonnage of mineral leaving a quarry/wharf as measured at a weighbridge.
Aggregate consumption	Apparent consumption is calculated from data on known sales within each home region (or sub-region), plus known imports from other regions (or sub-regions) and, where appropriate, known imports from outside England and Wales (Scotland, Northern Ireland and Europe). It is less than total consumption due to unallocated sales of unknown destination which, therefore, cannot be attributed to any consuming region (or sub-region). Further, some caution should be used in interpreting the consumption figures as they are calculated from the principal destination of aggregate flows. Final sales, particularly for rail-borne aggregates, may be to other regions. For example, some material transported to the East of England may be finally consumed in London and the South East.
All sites	All land-won mineral workings for the production of aggregates.
AONB	Area of Outstanding Natural Beauty designated under the National Parks and Access to the Countryside Act 1949 for the purposes of preserving and enhancing their natural beauty.
BAA	British Aggregates Association, the trade body for independent quarry companies.
Borrow pit	A site for the extraction of aggregate minerals over a limited period, for exclusive use in a specific construction project, which will usually be close to or contiguous with the site.

Construction fill	Fill material that will bear loads (e.g. in suitably designed embankments) as distinct from landfill to occupy voids and not specially intended to bear loads.
Dormant site	Dormant sites may be defined in accordance with the Planning & Compensation Act 1991 (PCA 1991) or the Environment Act 1995 (EA 1995). In respect of the PCA 1991 the term defines a site where mineral planning permission was granted after 21 July 1943 and before 1 July 1948 and where no working has been carried out to any substantial extent in, on or under the land to which the permission relates between 1 May 1989 and 30 April 1991 inclusive. In respect of the EA 1995 the term defines a site where the predominant mineral permission(s) was granted after 30 June 1948 and before 22 February 1982, and where no mineral development has been carried out to any substantial extent in, on or under the site between 22 February 1982 and 6 June 1995 inclusive. The term "substantial extent" is not defined in statute and, in the absence of case law, the words have their common or everyday meaning. It is unlawful to carry out mineral working on a dormant site until full modern planning conditions have been approved by the relevant Mineral Planning Authority (MPA). There is no time limit for the submission to the relevant MPA of an application for the determination of such conditions. Dormant sites do not contain permitted reserves.
Extension	A site granted permission for the extraction of aggregate minerals for which there has been a change in the size (laterally or vertically) of the development from the original planning consent.
Green Belt	An area of land designated in development plans within which the fundamental aim is to prevent urban sprawl by keeping that land permanently open.
Greenfield site	For the purposes of the Aggregate Minerals Survey, land previously in agriculture or non-urban/industrial use which becomes the location for a new mineral operation. Analogous to new quarries.
Hoggin	A term mainly applied in southern England for 'as raised' clayey sand and gravel, used as dug for constructional fill for low-grade purposes, paths etc. ('A natural deposit of stony sand and gravel containing a small admixture of clay which is sufficient to hold the mass together without affecting the interlocking properties of the coarser particles.' Mineral Dossier on Sand and Gravel. Mineral Resources Consultative Committee, 1970).
New quarries	A totally new mineral operation.
Landbank	A stock of planning permissions to which valid conditions are attached for the winning and working of minerals. It is composed of the sum of all permitted reserves at active and inactive sites (but not dormant sites) at a given point in time, and for a given area.
Marine wharves	Points at which marine-dredged sand and gravel are landed and processed. Some marine wharves are used for landing crushed rock.
MPA	Mineral Planning Authority, responsible for planning control over mineral working within its area.
mpa	Mineral Products Association, the trade association which represents some 120 quarry operators, who together account for more then 90% of the quarried aggregate materials in Great Britain.

Mt	Million tonnes (i.e. Megatonne).
National Park	National Parks are designated under the National Parks and Access to the Countryside Act 1949. Their aims are to conserve and enhance the natural beauty, wildlife and cultural heritage they contain, and to promote opportunities and enjoyment by the public of the areas they cover. An independent National Park Authority administers each Park. The Norfolk and Suffolk Broads are also administered by their own independent authority and enjoy protection equivalent to that of a National Park.
Non-aggregate uses	Use of material suitable for aggregate purposes (see Aggregate above) for uses other than constructional and normal aggregate applications. Such uses could include ingredients in industrial processes, e.g. the manufacture of cement, chemicals, refractories, iron/steel, glass, ceramics, sugar, plastics, rubber, paper and sealants. It would not cover the use of finely crushed material used to manufacture concrete bricks, blocks, pipes and tiles (this is classed as aggregate). However, it would, for example, include lime use in bricks or blocks. The term also covers building, dimension, memorial, paving, walling and armour stone (e.g. for sea/river defenses) (i.e. in all cases where not crushed) and ground limestone or dolomite use in agricultural fertilizers and feedstuffs. The term 'industrial uses' is sometimes used synonymously with 'non-aggregate uses' but this term could imply the exclusion of building stone and material for agricultural use.
Permitted reserve	The tonnage of mineral in a site (including stockpiles) for which full planning consent (planning permission with determined conditions attached) for extraction exists. Such sites may be operational or inactive. Inactive sites include those where extraction has been undertaken in the past and where permitted reserves still remain and those where planning permission has been granted but extraction has yet to begin. Dormant sites, as defined by the Planning & Compensation Act 1991 and the Environment Act 1995, cannot be worked until new schemes of conditions have been determined and therefore do not contain permitted reserves. See also landbank.
AWP	Aggregate Working Party.
SAC	Special Areas of Conservation designated in accordance with European Directive 92/43/EEC, adopted 21st May 1992, to provide measures to conserve natural habitats and associated wild fauna and flora. The directive is commonly known as the 'Habitats Directive.' SACs, together with SPAs (see below), form part of 'Natura 2000,' a European wide network of areas of special nature conservation interest. SACs are also SSSIs.
SPA	Special Protection Areas designated in accordance with European Directive 79/409/EEC, adopted 2nd April 1979, to provide measures to conserve wild birds, their eggs and their habitats. This directive is commonly known as the 'Birds Directive.' SPAs are also SSSIs.
SSSI	Site of Special Scientific Interest designated by English Nature (now part of Natural England) or the Countryside Council for Wales in accordance with the Wildlife and Countryside Act 1981 so as to conserve areas of special interest for their flora, fauna, geological or geomorphological interest.

Appendix H - Bibliography

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Regional Aggregate Working Parties: Collation of the Results of the 1977 Survey. Department of the Environment, 1980.

Regional Aggregate Working Parties: Collation of Interim Reports. Department of the Environment, 1978. [1973 Survey data].

Each Aggregate Working Party produces Annual Monitoring Survey reports. The results of the AM2014 Survey will also appear in the AWP Annual Reports for 2014. These are available from the AWP Technical Secretaries (see Appendix I).

Appendix I - Aggregate Working Parties: Secretaries (as from March 2016)

1. South West

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7. East Midlands

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Appendix J - Members of the AM2014 National Collation Steering Group

DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT

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Eamon Mythen
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Joanne Smith
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Natalie Durney-Knight
North West AWP

Garry Nancarrow
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Kevin Tipple
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Lonek Wojtulewicz
Chairman, East Midlands AWP / Planning Officers Society

MINERAL PRODUCTS ASSOCIATION

Jerry McLaughlin
Mineral Products Association

BRITISH AGGREGATES ASSOCIATION

Peter Huxtable
British Aggregates Association

Appendix K - AM2014 project team

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Dr Joseph Mankelow - Project Leader

Tom Bide - Minerals Geologist

Marcus Sen - Database Design and Development

Emma Raycraft - Data Entry

Don Cameron - Quality Assurance

Teresa Brown - Quality Assurance

Appendix L – Mineral Planning Authorities within Aggregate Working Party regions in 2014

REGION	Mineral Planning Authority
SOUTH WEST AWP	Bath and North East Somerset Council Bournemouth Borough Council Bristol City Council Cornwall County Council Dartmoor National Park Devon County Council Dorset County Council Exmoor National Park Gloucestershire County Council Isles of Scilly North Somerset Council Plymouth City Council Poole Borough Council Somerset County Council South Gloucestershire Council Swindon Borough Council Torbay Council Wiltshire County Council
SOUTH EAST AWP	Bracknell Forest District Council Brighton and Hove Council Buckinghamshire County Council East Sussex County Council Hampshire County Council Isle of Wight Council Kent County Council Medway Council Milton Keynes Council New Forest National Park Oxfordshire County Council Portsmouth City Council Reading Borough Council Slough Borough Council South Downs National Park Southampton City Council Surrey County Council West Berkshire District Council West Sussex County Council Windsor & Maidenhead District Council Wokingham District Council
LONDON AWP	London Borough of Barking & Dagenham London Borough of Barnet London Borough of Bexley London Borough of Brent London Borough of Bromley London Borough of Camden London Borough of Croydon London Borough of Ealing London Borough of Enfield London Borough of Greenwich London Borough of Hackney London Borough of Hammersmith and Fulham London Borough of Haringey London Borough of Harrow London Borough of Havering London Borough of Hillingdon London Borough of Hounslow

REGION	Mineral Planning Authority
LONDON AWP CONTINUED	London Borough of Islington London Borough of Kensington and Chelsea London Borough of Lambeth London Borough of Lewisham London Borough of Merton London Borough of Newham London Borough of Redbridge London Borough of Richmond London Borough of Southwark London Borough of Sutton London Borough of Tower Hamlets London Borough of Waltham Forest London Borough of Wandsworth London Borough of Westminster London, City of Royal Borough of Kingston upon Thames
EAST OF ENGLAND AWP	Bedford Borough Council Broads Authority Cambridgeshire County Council Central Bedfordshire Council Essex County Council Hertfordshire County Council Luton Borough Council Norfolk County Council Peterborough Southend-on-Sea Borough Council Suffolk County Council Thurrock Borough Council
EAST MIDLANDS AWP	Derby City Council Derbyshire County Council Leicester City Council Leicestershire County Council Lincolnshire County Council Northamptonshire County Council Nottingham City Council Nottinghamshire County Council Peak District National Park Rutland CC DC
WEST MIDLANDS AWP	Birmingham City Council Coventry City Council Dudley Metropolitan Borough Council Herefordshire Council Sandwell Metropolitan Borough Council Shropshire County Council Solihull Metropolitan Borough Council Staffordshire County Council Stoke-on-Trent City Council Telford and Wrekin Council Walsall Metropolitan Borough Council Warwickshire County Council Wolverhampton Metropolitan Borough Council Worcestershire County Council
NORTH WEST AWP	Blackburn with Darwen Borough Council Blackpool Borough Council Bolton Metropolitan Borough Council Bury Metropolitan Borough Council Cheshire East Council Cheshire West and Chester Council Cumbria County Council Halton Borough Council Knowsley Metropolitan Borough Council

REGION	Mineral Planning Authority
NORTH WEST AWP CONTINUED	Lake District National Park Lancashire County Council Liverpool City Council Manchester City Council Oldham Metropolitan Borough Council Rochdale Metropolitan Borough Council Salford City Council Sefton Metropolitan Borough Council St. Helens Metropolitan Borough Council Stockport Metropolitan Borough Council Tameside Metropolitan Borough Council Trafford Metropolitan Borough Council Warrington Borough Council Wigan Metropolitan Borough Council Wirral Metropolitan Borough Council
YORKSHIRE & THE HUMBER AWP	Barnsley Metropolitan Borough Council Bradford Metropolitan Borough Council Calderdale Metropolitan Borough Council City of York Council Doncaster Metropolitan Borough Council East Riding of Yorkshire Council Kingston upon Hull City Council Kirklees Metropolitan Borough Council Leeds City Council North East Lincolnshire Council North Lincolnshire Council North York Moors National Park North Yorkshire County Council Rotherham Metropolitan Borough Council Sheffield City Council Wakefield Metropolitan Borough Council Yorkshire Dales National Park
NORTH EAST AWP	Darlington Borough Council Durham County Council Gateshead Metropolitan Borough Council Hartlepool Borough Council Middlesbrough Borough Council Newcastle City Council North Tyneside Council Northumberland County Council Northumberland National Park Redcar and Cleveland BC South Tyneside Metropolitan Borough Council Stockton-on-Tees Borough Council Sunderland City Council
SOUTH WALES AWP	Blaenau Gwent Brecon Beacons National Park Bridgend Caerphilly Cardiff (City of) Carmarthenshire Ceredigion Merthyr Tydfil Monmouthshire Neath Port Talbot Newport Pembrokeshire Pembrokeshire Coast National Park Powys Rhondda, Cynon, Taf (Taff) Swansea (City of)

REGION	Mineral Planning Authority
SOUTH WALES AWP CONTINUED	Torfaen Vale of Glamorgan
NORTH WALES AWP	Conwy (Aberconwy & Colwyn) Denbighshire Flintshire Gwynedd Isle of Anglesey Snowdonia National Park Wrexham