



British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL



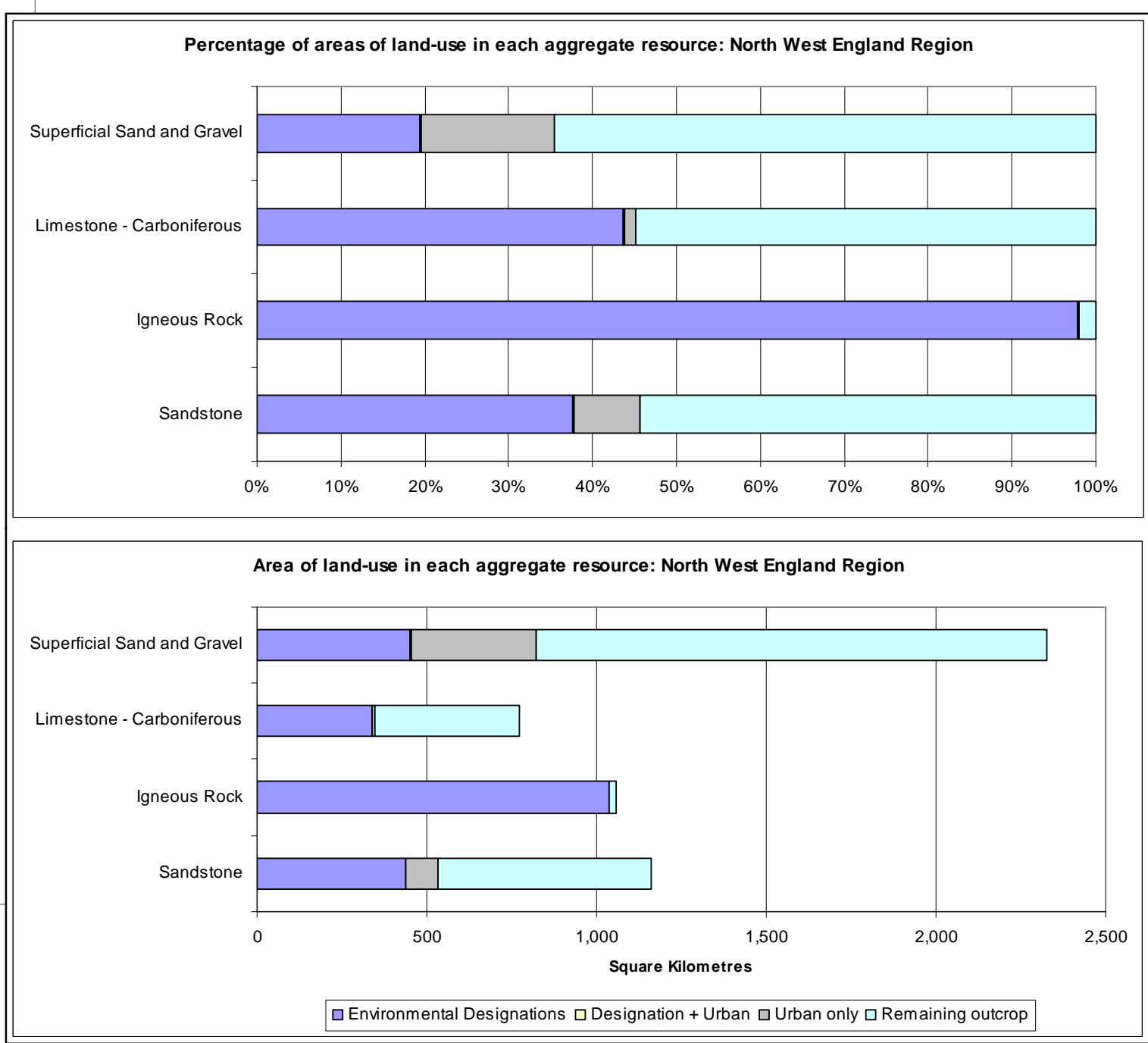
North West England Region

Aggregate Mineral Resources

outside of selected environmental designations

Scale 1:250 000

Accompanies BGS report OR/BA/025 'Aggregate Resource Alternatives - Options for Future Aggregate Minerals Supply in England', published 2008.
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SAND AND GRAVEL

Superficial Deposits

Sand and Gravel

CRUSHED ROCK

Sandstone

Igneous Rock

Limestone - Carboniferous

Active Quarry, Rail Depot, Wharf

() Sand and Gravel - Natural aggregate end uses only

() Crushed Rock - Natural aggregate end uses only

() Sand and Gravel / Crushed Rock - Natural aggregate end uses only

() Sand and Gravel - Natural aggregates (possibly as a by-product) and other commodities

() Crushed Rock - Natural aggregates (possibly as a by-product) and other commodities

Abbreviation descriptions

CR	Crushed Rock	SAG	Secondary Aggregates
Ig	Igneous Rock	SG	Sand and Gravel
Lst	Limestone	Sis	Silica Sand
MSG	Marine Sand and Gravel	Sst	Sandstone
S	Sand		

Urban area

Main road

Motorway

Railway

Mineral Planning Authority boundary

Quarry with estimated annual sales of 1 million tonnes or greater

Mineral resources within selected environmental designations are not shown (see Aims and Limitations)

Mineral resources covered by urban areas are shown as transparent

Aims and Limitations

The purpose of the maps in this series is to show the broad distribution of those aggregate mineral resources that may be of current or potential economic interest which lie outside of selected nationally / internationally-recognised environmental designations. Those mineral resources that lie within National Parks, Areas of Outstanding Natural Beauty, Sites of Special Scientific Interest, Special Areas of Conservation and Special Protection Areas are not shown. The maps are intended to assist in the consideration and preparation of development plan policies with respect to aggregates extraction. They bring together a wide range of information, much of which is scattered and not always available in a convenient form.

These maps have been produced by collation and interpretation of mineral resource data held by the British Geological Survey.

Information on environmental designations has been obtained from the appropriate statutory body (Natural England) who should be contacted for further information.

The aggregate mineral resource data presented are based on the best available information, but are not comprehensive and their quality is variable. The inferred boundaries shown are, therefore, approximate. Mineral resources defined on the map delineate areas within which potentially workable minerals may occur. These areas are not of uniform potential and take no account of planning constraints that may limit their working. The economic potential of specific sites can only be proved by a detailed evaluation programme. Such an investigation is an essential precursor to submitting a planning application for mineral working. Extensive areas are shown as having no aggregate mineral resource potential, but some isolated mineral workings may occur in these areas.

The locations of those quarries active in 2005 and extracting aggregate either as a primary product or as a by-product of other mineral extraction are shown (including those that lie within the selected environmental designations). The locations of those wharves and rail depots active in 2005 and where known, are also shown. While the compilers have tried to ensure that the site details are as accurate as possible, any map of active quarries is a snapshot in time. Moving the extraction location as reserves become exhausted or a new extension starts production, and renaming of sites are regular occurrences. Also sites may cease to be active at any time.

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