BRITISH GEOLOGICAL SURVEY

DOE

# STAFFORDSHIRE

( excluding the Peak District National Park )

A Summary of Mineral Resource Information for Development Plans

## Sand and Gravel Resources

Scale 1:100 000

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AIMS AND LIMITATIONS

The purpose of the maps and associated reports in this series is to show the broad distribution of those mineral resources which may be of current or potential economic interest and to relate these to selected nationally-recognised planning constraints. The maps are intended to assist in the consideration and preparation of development plan policies in respect of mineral extraction and the protection of important mineral resources. They bring together a wide range of information, much of which is scattered and not always available in a convenient form.

The maps have been produced by collation and interpretation of mineral resource data principally held by the British Geological Survey. Information on mineral planning permissions has been obtained from the relevant Mineral Planning Authority. Some of these permissions may have lapsed or expired. The status of individual areas can be ascertained from the appropriate MPA. Location information on national planning designations has been obtained from the appropriate statutory body (Countryside Commission, English Nature and English Heritage). For further information, the appropriate body should be contacted.

The 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. Extensive areas are excluded as having no mineral resource potential, but some isolated mineral workings may occur in these areas. The presence of these operations generally reflect very local or specific situations which are referred to in the accompanying report.

The maps are intended for general consideration of mineral issues and not as a source of detailed information on specific sites. The maps should not be used to determine individual planning applications or in taking other decisions on acquisition or use of a particular piece of land, although they may give useful background information which sets a specific proposal within context.

The map shows the geological distribution of sand and gravel resources and principally those that are gravel-bearing. Two categories are shown: i) Superficial deposits, subdivided into river gravels and glacial sand and gravels; ii) Bedrock deposits, represented by conglomerates within the Triassic Sherwood Sandstone Group. These divisions reflect the different form, extent, grading and thus value of the deposits as aggregate resources.

**Bedrock sand and gravel** resources are confined to the conglomerates of the Sherwood Sandstone Group and Staffordshire is one of the few counties with resources of this nature. Deposits are poorly cemented and comprise well-rounded pebbles and cobbles of quartzites in a fine-grained matrix. Beds of pebble-free sand, sandstone and mudstone are regarded as waste. Deposits may be in excess of 60 m thick. Where the Sherwood Sandstone is devoid of pebbles it is of limited value as an aggregate resource (other than as fill) and not shown except on the inset map.

The subdivision of the bedrock resources by the heavy line reflects the different levels of information available. North of the line, recent geological mapping and conglomerate resource studies have identified individual conglomerate units. South of the line, no detailed studies have been made. The resource shown is the former 'Bunter Pebble Beds' which may include significant sand or sandstone waste.

**River gravels,** including river terrace deposits, are unconsolidated and well sorted. They are likely to be relatively clean but beds of silt and clay may occur. Deposits only rarely exceed 10 m in thickness and typically are much thinner. They are likely to be relatively consistent in quality locally. Their composition will depend on the bedrock and glacial units being eroded within the river's catchment. After processing, the material is suitable for concrete aggregate.

**Glacial sand and gravel** is predominantly locally derived. It may show considerable lateral variation in thickness and grading with a high 'fines' or clay content locally. Deposits are likely to be less than 10 m thick, but greater thicknesses occur infilling glacial channels and hollows. Deposits extend beneath till (boulder clay) in parts of the county.

PEAK DISTRICT NATIONAL PARK

SPREADS OF GLACIAL SAND AND GRAVEL KNOWN WITHIN AND BENEATH TILL. POTENTIALLY WORKABLE DEPOSITS MAY OCCUR LOCALLY

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Huntley Wood
Freehay
Croxden
Trentham (Lordsley)
Almington
Eccleshall
Rugeley
Newbold
Manor Park
Barton Pit
Alrewas
Pottal Pool
Huntington
Elford
Saredon
Wharf Lane
Anglesey
Cranebrook
Shire Oak
Windmill Hill
Hilton Park
Hints
Hopwas
Weeford
Weeford (Moneymore)
Middleton Hall
Seisdon
Trysull
Whittimere
Blackhills
Hinksford Road
Enville Road
Stewpony

Outcrop area of Triassic, Sherwood Sandstone Group

0 10 km

(Sst)

(Sg)

Mineral workings in generally pebble-free Sherwood Sandstone Group

Sherwood Sandstone Group important aggregate resource where pebble-bearing, but elsewhere of more limited value. Locally worked for building stone and formerly for naturally - bonded moulding sand. A potential source of fill.

## SAND AND GRAVEL

Superficial deposits

- River gravel resources
- Glacial sand and gravel resources
- Possible extensions of glacial sand and gravel resources beneath Till

Bedrock Deposits

Northern part of map

- Exposed conglomerate resources
- Additional conglomerate resources mostly beneath overburden

Southern part of map

- Areas within which conglomerate resources may occur

} Triassic, Sherwood Sandstone Group

### MINERAL WORKINGS

- Sand and gravel working

### MINERAL PLANNING PERMISSIONS (as at 31.12.94)

Source: Staffordshire County Council

- Planning permissions for sand and gravel

### ENVIRONMENTAL DESIGNATIONS

- Area of Outstanding Natural Beauty (Cannock Chase)
- Site of Special Scientific Interest
- National Nature Reserve
- + Scheduled Monument

### ADMINISTRATIVE AREAS

- County
- District
- Peak District National Park