PART 2- PRODUCTION OF MINERALS

Chapter 6  Sand and Gravel

Sand and Gravel Processing at Besthorpe Quarry
Introduction

6.1 The production of aggregate minerals, which include sand and gravel and crushed rock, is now the largest extractive industry in Great Britain with over 200 million tonnes being extracted every year. Sand and gravel, which accounts for about 90 million tonnes (40%) of national aggregate production, is used primarily in the production of concrete, building and asphalting sand.

6.2 Nottinghamshire is the largest producer of sand and gravel in the East Midlands and one of the largest in Great Britain. Sand and gravel is worked from alluvial resources in the Trent and Idle Valleys and also from the Sherwood Sandstone. Although there is some geographical and end-use overlap, the two minerals are very distinct and are treated as separate minerals for the purposes of this Plan. This Chapter considers sand and gravel, and Sherwood Sandstone is considered in Chapter 7.

Geology

6.3 In addition to the main deposits found in the Trent and Idle Valleys, sand and gravel also occurs in the Soar Valley, other minor tributaries and in isolated glacial deposits scattered across the County.

6.4 The gravel component is normally a quartzitic, high strength material capable of meeting most specifications for concrete. This factor can give Nottinghamshire’s deposits a premium above those found elsewhere which may contain gravels made up of weaker sandstone pebbles.

6.5 The richest and most extensive deposits occur in the Trent Valley, where yields can exceed 100,000 tonnes per hectare, although 60-80,000 tonnes is more typical. In the Idle Valley yields generally range from 30-40,000 tonnes per hectare in the Sutton and Lound area, to just 20-30,000 tonnes at Misson. The ratio of sand to gravel also varies, from near equal proportions in the Trent Valley upstream of Girton to a third gravel or less elsewhere. In general high gravel yields are normally more economically attractive. Yields from glacial deposits are much more variable.

6.6 The above assumptions on yields and mineral content are broad generalisations. Alluvial deposits are very unpredictable, in both quality and quantity. The thickness of mineral and overburden, along with the proportions of sand and gravel can vary dramatically over very short distances. Buried river channels, clay beds, excessive silt content, coal and peat contamination can all take their toll on the quality, and therefore on the viability of a deposit, or the range and proportion of aggregates that can be produced. Predictions about yields and quality must be treated with caution.
Method of Working and Environmental Impact

6.7 After stripping soils and overburden, the exposed mineral can easily be excavated by dragline or hydraulic excavators, which either load direct onto dumptrucks or feed conveyors for transporting the raw mineral to the processing plant. At the plant a series of screening and washing operations grade and sort the mineral into the required sizes of sand and gravel. Waste ‘fines’ (i.e. fine sand, silt, clay) which on average make up between 5-10% of the deposit are pumped into silt ponds. Silt ponds are normally allowed to dry out to permit reclamation, although once full they can be re-excavated to provide extra capacity.

6.8 Where a conveyor system and electric submersible pumps are used the working itself can be relatively unobtrusive and quiet. Noise and dust problems are most likely to be at their worst during soil stripping and replacement operations, which often involve the intensive use of excavators, dumper trucks and other heavy mobile plant. Fortunately these activities are intermittent and of short duration. The large fixed processing plant and stockpile areas can be visually intrusive and noisy.

6.9 The high water table level at most sand and gravel quarries means that active workings have to be pumped, to enable dry extraction. Wet extraction is possible, but is less efficient and rarely practised. Once pumping ceases following extraction, the void soon floods to form a lagoon.

6.10 In terms of land take, sand and gravel extraction is voracious and is the largest surface mineral working in the County. All the main environmental issues discussed in Chapter 3 are therefore very applicable, including the problems of cumulative impact. Visual impact, noise and traffic are the most common concerns. The river valleys are also very rich in archaeological remains, and few areas escape having significant known or potential archaeological constraints. There are special concerns in the South Muskham area, which are considered below.

The Archaeological Resource at South Muskham

6.11 South Muskham parish contains one of the densest areas of known archaeological remains in the Trent Valley, reflecting a long history of settlement and landscape development. Whilst this area is of major local and regional importance, it is imperfectly understood at present. A 5 year field walking programme has been undertaken but until the whole resource has been properly studied, the effect of losing individual sites or features cannot be adequately gauged, and decisions about any necessary treatment are likely to be premature and flawed. Consequently, there will be a presumption against mineral extraction within this area for the duration of the Plan period.

POLICY M6.1 ARCHAEOLOGICAL RESOURCE AREA – SOUTH MUSKHAM

Planning permission will not be granted for sand and gravel extraction within the major archaeological resource area near South Muskham.
Reclamation and After-use

6.12 In Nottinghamshire about 50 hectares a year are worked for sand and gravel, a significant proportion of which goes back to wetland. The high water table level and lack of suitable fill means that for most sand and gravel workings a water after-use is the only feasible option. Perpetual pumping may be technically possible, but to date has rarely proved viable. Well designed water areas can be very beneficial by creating valuable new habitats that can promote biodiversity. Sports and other amenity facilities can also be developed.

6.13 Historically, many sand and gravel quarries were restored back to original level by infilling with PFA. However, the availability of PFA has decreased dramatically in recent years and therefore restoration to water is often the only available option. Tighter pollution controls means that other materials, such as commercial, domestic and industrial waste, cannot be used for infilling sand and gravel quarries. Inert waste is suitable, but targets to re-use or recycle construction wastes to provide secondary aggregate also means that less of this waste is available.

6.14 If properly planned, future water areas can have a positive impact. However, with so many existing and permitted water areas there is a limit to what extent these can be accommodated without causing an unacceptable degree of change to the landscape character of the Trent and Idle Valleys. Some areas have already seen substantial changes with villages being encircled by water to varying degrees. In these areas cumulative impact is becoming a major issue and further development is unlikely to be acceptable.

6.15 A further impact of reclamation to water is the permanent loss of large areas of agricultural land, including the best and most versatile land. For sites of this land quality, agricultural reclamation is likely to be the preferred option.

Supply and Demand

Sources of Information

6.16 National and county figures for sand and gravel production are published annually by Government sources. This data details end-uses but does not distinguish between alluvial sand and gravels and the Sherwood Sandstone. This split is only identified by the East Midlands Working Party on Aggregates (EMWPA) which was established in 1973 to carry out surveys of production, permitted reserves, end-uses and distribution. Where possible, the EMWPA data is used, which refers specifically to minerals extracted in Nottinghamshire, and not necessarily where they are processed.
Recent Production History and Trends

6.17 National sand and gravel production reached a peak of 131 million tonnes in 1989 before rapidly falling back to between 80 – 90 million tonnes by the late 1990s, levels which have not been seen since the early 1960s. Sand and gravel production in Nottinghamshire has generally mirrored national trends with production peaking at 3.6 million tonnes in 1988, falling back to an average of 2.7 million tonnes between 1997 and 2001. The reasons for these trends are not entirely clear, but may reflect a decline in road and other construction activity, a greater use of secondary aggregates and a long-term national trend that has seen a shift away from sand and gravel to crushed rock.

Markets

6.18 Sand and gravel is a low cost bulk mineral and, because aggregates have a widespread geographical occurrence, transport costs usually concentrate sales within a 30-40km radius. Long distance haulage is normally only economic where large tonnages can be sent by rail or water to areas where demand exceeds local sources of supply.

6.19 Of all the sand and gravel produced in Nottinghamshire just under a third is used within the County. Nearly half the production goes to Yorkshire and Humberside with the remainder mostly exported to other East Midland counties.

6.20 A significant element of these ‘exports' represents no more than local cross boundary sales. In particular, quarries in the north of the county are very accessible to the major conurbations in South Yorkshire and Humberside.

6.21 Whilst most sand and gravel is transported by road, three Trent Valley quarries can barge large quantities of mineral to receiving wharves in Yorkshire and Humberside. The recently opened Europort at Wakefield is expected to result in an increase in production and barge movements from these quarries.

Consideration of Future Demand

6.22 National guidance on aggregates provision is contained in Mineral Planning Guidance Note 6 (MPG6) ‘Provision of Aggregates in England' published in 1994. MPG6 estimated how much aggregate each region needed to be able to provide between 1992 and 2006, split between sand and gravel and crushed rock. It was then up to each region to decide how to apportion its requirements down to a local MPA level. For the East Midlands, agreement was reached via the Regional Forum in October 1994, using data provided by the EMWPA. Nottinghamshire’s regional share of sand and gravel production was set at 3.3 million tonnes per annum. (NB. this excluded the share to be met from the Sherwood Sandstone – see Chapter 7).
6.23 Since 1994, national and local demand for sand and gravel has, however, fallen well below what MPG6 predicted. As noted earlier annual sales in Nottinghamshire averaged just 2.7 million tonnes between 1997 and 2001 well over half a million tonnes less than that predicted, see Figure 6.1 below. The current guidance is demonstrably out of date and can no longer provide an appropriate basis for quantifying future provision in this Plan.

Figure 6.1 Nottinghamshire Sand and Gravel Production – 1982-2001

6.24 The Government intends to produce revised guidance and published a Key Issues Paper in October 2000. The Key Issues paper recognises that the current and past forecasts have proved unreliable and suggests possible new approaches towards forecasting and making future provision of aggregates in mineral local plans.

6.25 The Key Issues Paper also confirms the Government's wish to see the dependence on primary aggregates reduced in favour of secondary aggregates and promoting greater efficiency of use. Fiscal measures to promote this strategy commenced in 1996 with the introduction of the landfill tax. This promotes the recycling of construction and demolition waste by making landfilling more expensive. In April 2002, a new aggregates levy was introduced which taxes primary aggregates. This should help make secondary aggregates more competitive and reduce wastage. The success of these measures has yet to be assessed, although in Nottinghamshire they may have prompted the development of a number of secondary aggregate plants. However, the impact these have had on reducing demand for primary aggregates has not been quantified.

6.26 New guidelines on aggregate provision in England were published by the Government in June 2003. These guidelines consider demand for aggregates over the 16-year period 2001-2016. The national forecast figure of 212.5
million tonnes per annum has been apportioned down to each region and
category of aggregate e.g. sand and gravel, crushed rock, alternative sources
etc. For the East Midlands, annual sand and gravel extraction is assumed to
average 10.313 million tonnes per annum. Using the same approach as
adopted in the previous Plan, this means that Nottinghamshire will need to be
able to produce 2.65 million tonnes per annum between 2002-2016 (see
Figure 6.1 and Table 6.1 for details). This figure is almost identical to recent
average production of 2.7 million tonnes per annum. These guidelines only
replace the relevant parts of MPG6. A full revision of MPG6 is expected to be
included in a new ‘Minerals Policy Statement’ (see Paragraph 1.14).

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<tr>
<th>E. Midlands X 1000 tonnes</th>
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<td>X 1000 Tonnnes</td>
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<td>2001</td>
<td>10,149</td>
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<td>Average 1997-2001</td>
<td>10,353</td>
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<td>Forecast Provision 2001-2016</td>
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* Notts’ recent regional share of 25.84% assumed to apply for forecast period.

6.27 The 2.65 million tonnes is not a target, but provides a context on which to
assess future requirements. Future sales of aggregate are unlikely to follow a
uniform trend, especially at a county level. In addition to any underlying
trends, local supply is prone to being affected by the frequent changes to the
Industry that has generally seen aggregate production controlled by fewer but
larger companies with a national presence. The inevitable rationalisations this
causes can significantly affect local supply. For example sales may be
transferred from one quarry to another and not necessarily in the same county
- the recent mothballing of Girton quarry being one such example (see Para.
6.84).

**Future Provision**

**Landbanks**

6.28 MPG6 recommends that for sand and gravel, a landbank of permitted
reserves should be maintained at a minimum level of 7 years. Although the
Key Issues Paper questions the role and use of landbanks, in the absence of
any firm indications to the contrary, this Plan will continue to assume that a
minimum landbank of 7 years will apply. This corresponds to 18.6 million tonnes (i.e. 7 years at the annual requirement of 2.65 million tonnes).

POLICY M6.2 SAND AND GRAVEL LANDBANK

The County Council will endeavour to maintain a landbank of permitted reserves of sand and gravel sufficient for at least 7 years extraction and also an adequate production capacity in order that Nottinghamshire will meet its reasonable share of regional provision of aggregates throughout the plan period.

Estimating Future Requirements

6.29 In accordance with MPG6, the Minerals Local Plan must demonstrate that suitable resources exist which can sustain a 7 year landbank. In this respect MPG6 advises that, whilst sufficient resources must be identified to sustain production throughout the plan period, it is not intended that plans should make full provision for maintaining a landbank beyond the end of the plan period. Nevertheless local plans should ensure that such resources could be brought forward if necessary. This approach provides flexibility by allowing more long-term shortfalls to be more properly assessed against future reviews of MPG6 and the Minerals Local Plan.

6.30 At the start of 2002, permitted reserves of sand and gravel stood at 28.8 million tonnes equivalent to a landbank of 11 years, sufficient until 2013. To maintain a 7 year landbank throughout the plan period up to 2021 will require a total of 53 million tonnes, giving a shortfall of 24.2 million tonnes (see Table 6.2 below).

Table 6.2 – Total requirements for maintaining a 7 year landbank of sand and gravel reserves throughout the Plan period (i.e. 2002-2014 + 7 years = 20 years)

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<th>Tonnage (in millions)</th>
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<td>Total 20 year requirement</td>
<td>53</td>
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<td>Current permitted reserves/ landbank</td>
<td>28.8</td>
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<tr>
<td>Shortfall</td>
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</table>

6.31 Current reserves are very unevenly distributed between individual quarries. Hence, although the overall countywide landbank is sufficient until 2012, significant shortfalls will arise well before then. These shortfalls are concentrated in two main areas, namely the Trent Valley between Nottingham and Newark and the Idle Valley. In the Trent Valley north of Newark reserve levels are generally higher and shortfalls, where they exist, are mostly less significant.
6.32 For sand and gravel it is considered appropriate to meet future requirements by identifying suitable resources as site specific allocations. The criteria for selecting allocations are set out below.

Selecting Allocations

6.33 For allocations to be effective, it is important that there is satisfactory evidence that they contain economic deposits of mineral, which are likely to become available to the minerals industry within the Plan period. In this respect, the industry and other interested parties were asked to provide information on sites that they wished to see included in the Plan.

6.34 A total of 25 sites containing over 100 million tonnes were put forward by the industry and landowners (these sites included the remaining allocations in the previous plan). This is far in excess of what is required, but has provided a good range of options that have been compared against each other.

6.35 Each potential allocation has been assessed as part of the Sustainability Appraisal of the Plan (see Para 2.6). Allocations that had yet to be taken up in the previous plan were also included to make sure that they remained appropriate. The initial exercise was to assess the main sustainability impacts associated with each site, both in terms of extracting the mineral and reclamation and after-use options. As noted above, the creation of more water areas is a particular concern, especially in those parts of the County where significant water areas already exist.

6.36 Potential allocations were then assessed in terms of their ability to meet the shortfalls noted above. In accordance with advice in MPG6 (Para 69), the initial preference was to consider possible extensions, as this approach will generally reduce the level of environmental disturbance. However, where suitable extensions did not exist, replacement capacity capable of serving similar market areas has been considered. Protecting the commercial interests of individual companies has not been a factor in site selection.

6.37 Account has also been taken of the lower levels of production assumed in this Plan when compared to the previous plan. Whilst due regard must be given to maintaining a reasonable geographic spread of sites to meet local markets, there is clearly no need to replace all capacity that is lost. Fewer sites should mean less overall environmental impact and some loss of capacity is therefore desirable in environmental terms.

List of Allocations

6.38 The outcome of the above assessment has been to allocate a total of approximately 730 hectares containing an estimated 23.22 million tonnes. This has been distributed at 7 sites creating 2 new quarries and 5 extensions (see Table 6.3). There will however be a net reduction in the number of quarries and production during the Plan period.
Table 6.3  Sand And Gravel Extraction – Summary Of Proposed Allocations

<table>
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<th>Allocation</th>
<th>Hectares</th>
<th>Million Tonnes</th>
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<td>Bleasby</td>
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<tr>
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<tr>
<td>Misson – Finningley</td>
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<tr>
<td>Newington South</td>
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<tr>
<td><strong>Totals</strong></td>
<td><strong>730</strong></td>
<td><strong>23.22</strong></td>
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6.39 This provision almost meets the theoretical shortfall of 24.6 million tonnes in full and will provide a 7 year landbank throughout most of the Plan period. As noted in Para. 6.29 the Plan is not required to make full provision beyond the Plan period, hence the small deficit is not critical.

**Allocations - Strategy for Meeting Shortfalls**

6.40 The overall strategy behind these allocations, in terms of meeting the main shortfalls and providing an even spread of reserves is described, and illustrated in Figure 6.2 and Table 6.4 (see pages 85 and 86). For convenience the County’s resource is split into three areas, working along the Trent Valley from south to north and then the Idle Valley. Although the boundary between each area is to some extent arbitrary it does put the main shortfalls in context. The planning and environmental issues relating to each quarry and allocation (including the individual allocation policies) are set out at the end of this Chapter.

(a) The Trent Valley - Nottingham to Newark

6.41 Major shortfalls will arise due to the exhaustion of Holme Pierrepont and Hoveringham quarries in 2004 and 2007 respectively. These quarries have a combined planned output of at least 750,000 tonnes per annum. It is proposed to meet this shortfall by the allocation of a new quarry at Gunthorpe (this comprises an enlarged area to that allocated in the previous Plan). This will have a potential capacity of around 450,000 tonnes per annum. An existing small allocation at Bleasby is retained as a minor extension to Hoveringham, but its overall impact on future supply is marginal.

6.42 It is also assumed that East Leake Quarry and a new permitted quarry at Cromwell (if developed) are well located to serve markets previously met by Hoveringham and Holme Pierrepont.

(b) The Trent Valley north of Newark

6.43 This section of the Trent Valley does not show any signs of shortage of sand and gravel as borne out by Girton Quarry, which has been inactive since 2000 but may re-open in 2004, and the delayed commencement of a new quarry at Cromwell permitted in 1998. Over 8 million tonnes of reserves with a planned...
rate of extraction of around 500,000 tonnes per annum are locked up in these two sites. Significant shortfalls are limited to Rampton which will be exhausted in 2003. Besthorpe will not be exhausted until 2013 and in view of the long term nature of the shortfall it is proposed to defer consideration until the next review of the Plan. Langford Lowfields has sufficient reserves for the Plan period and no further provision is made.

6.44 An existing allocation to extend Rampton is retained, but this will only provide reserves until 2005.

6.45 The dormant capacity at Girton and Cromwell would be sufficient to meet these shortfalls and those arising in the Trent Valley between Nottingham and Newark. However, as noted below, much larger shortfalls will arise in the Idle Valley and it is principally because of this that a new replacement quarry is proposed at Sturton le Steeple.

(c) The Idle Valley

6.46 If no further reserves are permitted then all 4 main quarries at Sutton & Lound, and Misson will be exhausted by 2007. These currently produce over 1 million tonnes per annum. In the Idle Valley, resource depletion is a major problem. This factor when combined with environmental constraints affecting what little remains, severely limits options beyond re-allocating land east of the River Idle.

6.47 The Plan proposes to meet the shortfalls from Misson by the allocation of two small extensions; one at Finningley that will provide an extra 3 years of reserves and one at Newington that will provide reserves for an additional 10 years. These extensions represent the limit to sand and gravel extraction in the Misson area. The main shortfalls from Sutton & Lound are to be met by the allocation at Sturton le Steeple.

6.48 Reserves at Scrooby Quarry will be sufficient throughout the Plan period, although production is minimal.

Allocation Strategy – Conclusions

6.49 Sand and gravel extraction in Nottinghamshire will see major changes during the plan period. As predicted in the previous Plan the Idle Valley will be rapidly heading towards exhaustion and is likely to be providing only a very small contribution by 2014. The Trent Valley will therefore be required to meet nearly all the County’s requirements. Whilst the Plan has demonstrated this is feasible for this plan period, looking ahead to 2020 most of the existing and proposed reserves in the Trent Valley will probably be exhausted. Although resource depletion will not be a problem, finding sufficient environmentally acceptable sites to continue production at current levels much beyond the plan period is likely to be a fundamental issue for the future. This can only reinforce the need for significant long-term reductions in dependence on sand and gravel for meeting demand for aggregates.
Figure 6.2  Sand and Gravel Estimated Reserve Life of Current Permitted Workings and Allocations.

- Existing permitted reserves
- Allocation

* Note: Misson Finningley allocation includes reserves in Doncaster MBC (see Table 6.4 for detailed breakdown)
Table 6.4 Nottinghamshire – role of allocations in sustaining projected demand of 2.65 million tonnes per annum. Values x 1000 tonnes.

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<td>Closed</td>
<td>2012</td>
</tr>
<tr>
<td>Newington</td>
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<td>100</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>3075</strong></td>
<td><strong>3100</strong></td>
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Notes:
1. This table shows the expected relationships between the allocations and existing permitted capacity. Production values are based on planned outputs and are approximate. Planned output does not correspond to production capacity, which may at some quarries be significantly higher. Actual production rates will in overall terms be less if production averages 2.65 million tonnes per annum.
2. Figures in shaded panels relate to allocations. Misson italic figures in brackets in shaded panels relate to adjacent reserves in Doncaster MBC.
3. Table assumes that: Cromwell commences in 2005; Girton re-opens in 2004 to replace Sutton (Bellmoor); Sturton le Steeple replaces Rampton and Lound.
Proposals in Allocated Areas

6.50 In order that each allocation is put into context, every existing or permitted quarry is reviewed below in a south–north traverse of the County. Figure 6.2 and Table 6.4 show each existing and permitted quarry, and how the proposed allocations are expected to maintain an adequate landbank and production capacity. Site specific information on production and reserves is stated, although confidentiality restriction prevents complete disclosure of this data.

6.51 Planning permission to extract mineral from within each allocation is subject to the submission of satisfactory working and reclamation schemes in accordance with Chapters 3 and 4. The main planning and environmental issues concerning each allocation are considered in order to help guide what type of proposal would be acceptable within each allocation.

Proposals in Unallocated Areas

6.52 Proposals for sand and gravel extraction in unallocated areas will not normally be permitted. This is because sufficient provision exists, either in existing permitted reserves or as Plan allocations. Only where there is clear evidence that an adequate landbank cannot be sustained would it be acceptable to permit proposals outside allocated areas. Such circumstances could arise if, for example, it became apparent that some allocations were unlikely to come forward or they contained far less mineral than assumed. Minor temporary proposals for sand and gravel extraction in unallocated areas may be acceptable where they meet the criteria of incidental mineral extraction (see Policies M14.1 & M14.2).

POLICY M6.3 SAND AND GRAVEL EXTRACTION IN UNALLOCATED LAND

Proposals for sand and gravel extraction falling outside allocated areas will not be permitted unless it is evident that existing permitted reserves and the remaining allocations cannot sustain an adequate landbank and processing capacity as provided for in Policy M6.2.
Site by Site Analysis

ATTENBOROUGH

Background

6.53 This is the oldest active sand and gravel quarry in the County, dating back to at least the 1920’s. Extraction in Nottinghamshire largely ceased in the early 1970’s but has since continued in Derbyshire. However, the mineral is still brought by barge for processing at the original Nottinghamshire plant site at Long Lane, Attenborough. (NB. Production from this quarry is allocated to Derbyshire in the EMWPA surveys on which the local apportionment is based). The 190 hectares of workings in Nottinghamshire have been allowed to regenerate naturally and the area now forms an important Local Nature Reserve and SSSI.

Future assessment and planning issues

6.54 Current permitted reserves in Derbyshire are estimated to last until 2010 – 11. The Derby and Derbyshire Minerals Local Plan (adopted in 2000) allocates a further 1.6 million tonnes of reserves near Long Eaton that should, if permitted, provide a further seven to ten years of reserves. In resource terms there are no implications for Nottinghamshire during the current plan period.

6.55 The Long Lane Plant does, however, give rise to two main environmental concerns. First the plant site is very poorly located, being in a residential area where it causes noise and dust pollution. Access is also poor. Secondly, the nature reserve is contaminated by polluted water from the River Erewash, which enters the reserve through a wide breach needed to allow barges to reach the plant site from Derbyshire.

6.56 The Derbyshire Minerals Local Plan assumes that the Attenborough Plant will continue to be relied upon to process mineral from these allocations. Relocating the plant site is not ruled out, but the Derbyshire Plan does not actively promote this option. Instead it simply requires the existing plant site to be improved to an unspecified standard. Whilst the plant site can be improved, it is in such a poor location that such improvements can at best reduce the impact to a less unacceptable level. The preferred option must be to secure a more suitable location.

6.57 Planning permission to use the barge route extends to 31 December 2004. However the validity of retaining it beyond then may be contested and therefore the issues may not be resolved until after that date. If planning permission does lapse, then the current plant site may not be able to process mineral brought in from Derbyshire. It is not the County Council’s policy to permit unacceptable minerals development or to prolong existing unacceptable situations where this is not necessary. Accordingly, no further extension of time for use of the barge route or to supply the plant by other routes will be permitted, unless there is adequate evidence to demonstrate that a more suitable plant site is not available. In addition, all other options for alternative processing of the minerals must be fully considered.
6.58 If the plant can continue to be lawfully operated after 2004, or there are no other feasible options, then the only option left is to secure environmental improvements to the Plant, if and when land allocated in the Derbyshire Plan is permitted. Such improvements will need to represent the best available techniques for reducing environmental impact. These would most probably be secured under a planning obligation, tied to the grant of any planning permission for extraction, which would require the agreement of both County Councils and the mineral operator. With regards to pollution of the nature reserve, the Derbyshire Plan makes adequate requirements for this to be resolved before any further reserves are permitted.

POLICY M6.4 ATTENBOROUGH PLANT – ENVIRONMENTAL IMPROVEMENTS

The County Council will not permit proposals which would prolong the use of the Attenborough Plant, unless there is adequate evidence to demonstrate that a more environmentally suitable alternative plant site is not available.

Where the County Council is satisfied that there is no alternative but to use the Attenborough plant, then the County Council will seek to negotiate substantial environmental improvements to the Attenborough plant site via a planning obligation and/or other such means as appropriate as part of any future proposal to process minerals extracted from land allocated in the adopted Derbyshire Minerals Local Plan.

Such environmental improvements should include:

(a) A reduction in the noise and visual impact of plant and machinery on residential amenity;
(b) measures to reduce the impact of dust nuisance caused by the sand stockpiles;
(c) the enclosure of all conveyors and, where appropriate, conveyor motors to reduce noise impact;
(d) use of water bowsers to reduce dust impact of quarry traffic;
(e) metalling of internal roads beyond storage areas to reduce mud and dust impact;
(f) sheeting of lorries to reduce mud and dust impact on public highways;
(g) such additional landscaping, as appropriate, in order to reduce visual impact.

EAST LEAKE
Background

6.59 Planning permission for this 41 hectare quarry was granted in 1991. The site is located within one of the few significant glacial sand and gravel deposits in the County. Reclamation is to be to agriculture and a nature conservation lake. The original purpose of this quarry was to supplement the company’s Attenborough Quarry at a time of much higher demand expectations.
However, perhaps in response to the subsequent decline in demand during the 1990s, extraction did not commence until 2000.

**Future assessment**

6.60 The 2.8 million tonnes of reserves are expected to last until around 2016, based on the company’s projected annual output of 180,000 tonnes. No further provision is therefore necessary for the current plan period. In view of the quarry’s relative proximity to Nottingham it could act as a partial replacement to shortfalls arising in the Trent Valley downstream of Nottingham as considered below.

**HOLME PIERREPOINT**

**Background**

6.61 Holme Pierrepont has been quarried for sand and gravel since the late 1940s. Over 350 hectares of land have been permitted most of which have been reclaimed back to water areas, including the lakes that now form the National Water Sports Centre. The quarry was closed for most of the 1990’s due to exhaustion of reserves, but re-opened in 1999 following the granting of planning permission to extend the quarry. This was within land allocated in the previous Minerals Local Plan.

**Future assessment**

6.62 Reserves are expected to last until late 2003. Further extensions to Holme Pierrepont are limited to the land east of Sandy Lane as far as the railway embankment. The previous Plan identified strong environmental objections to working this area, because of the cumulative impact of encroachment around Holme Pierrepont village and unsatisfactory reclamation options. A new replacement quarry at Gunthorpe was allocated (see Para 6.68). This remains the stance for this replacement Plan.

**HOVERINGHAM**

**Background**

6.63 Hoveringham is the largest sand and gravel quarry in Nottinghamshire producing over half a million tonnes per annum. The quarry dates back to the 1940s and over 500 hectares have now been permitted. Reclamation has been both to agriculture and water. Agricultural reclamation was possible because for over 30 years PFA from Staythorpe Power Station was pumped into the worked out lagoons until the station closed in 1994. Water reclamation schemes include a large sailing lake near the riverside in addition to areas of nature conservation interest. The current workings west of the plant are exploiting land allocated in the previous plan. These will be reclaimed to a water based amenity area.

**Future assessment**

6.64 Existing permitted reserves are expected to last until 2007. Substantial reserves for extending the quarry exist principally north of the railway line and west of existing workings. The previous Plan concluded that further extensions would be environmentally unacceptable. Constraints include loss of attractive mature landscape areas and high quality agricultural land. Cumulative impact and encirclement of Hoveringham village is also a major
concern, not just with respect to the mineral extraction but also because it would create further water areas. Unlike Holme Pierrepont the current Plan did not make any provision to replace Hoveringham.

6.65 The previous plan also allocated a small extension near Bleasby, which represented a small rounding off of existing workings. It was expected to have a very limited environmental impact and would provide an opportunity to improve the reclamation of the adjacent workings to the west, which were subject to old planning conditions. In the event, the adjacent workings have since been satisfactorily reclaimed, so this advantage no longer exists. Estimated reserves have also been revised downwards from 500,000 to 200,000 tonnes which represents a reserve life of about 4 months. Although the significance of this allocation is very limited, it does provide an opportunity to recover mineral from a suitable area whilst the Hoveringham plant is still there to process it. It therefore remains appropriate to retain this allocation. Reclamation will be to a water area.

6.66 The main planning issues, which need to be taken into account, are:

(a) The western boundary comprises a ridge that forms an ancient Parish boundary. This should either be preserved in-situ or preserved by record and re-instated when the site is reclaimed.

(b) A wooded field boundary within the site should be protected as far as practical.

(c) A public right of way along the northern boundary of the site provides an important link between Bleasby and Thurgarton. Measures will need to be taken to maintain this link during and following mineral extraction.

(d) The reclamation scheme should help meet biodiversity objectives set out in Policy M3.17 and be appropriate to the river meadowlands landscape type of the Trent Washlands.

(e) All extracted mineral must be transferred to the plant site by internal haul route.

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POLICY M6.5 HOVERINGHAM (BLEASBY) ALLOCATION

7 hectares of land are allocated at Bleasby for sand and gravel extraction.

__________________________

6.67 The Plan proposes to replace Hoveringham by allocating a new quarry at Gunthorpe (see below). Other existing and permitted quarries are also assumed to have some capacity to replace markets currently served by Hoveringham.

GUNTHORPE

Background

6.68 Gunthorpe is proposed as a replacement for Holme Pierrepont and Hoveringham quarries which, as noted above, are expected to close in 2004.
and 2007 respectively. Gunthorpe was allocated in the previous Plan but has yet to been taken up. This was because the need for Gunthorpe was delayed due to the temporary closure of Holme Pierrepont Quarry throughout most of the 1990s.

6.69 This allocation lies adjacent to former sand and gravel workings, which were exhausted in 1978 and have only been partly restored. Although parts of the quarry have been filled with inert waste and PFA, most of the workings have been left as water areas, some of which have not received any remedial treatment. They have nevertheless developed a nature conservation interest and part of the site has since been designated as a SINC. Filling and agricultural reclamation conditions exist, but planning controls are ineffective and the landowner, Severn Trent Water, has also indicated a wish to develop the area for purposes including water recreation. The proposed allocation, along with an extensive tract of land to the west, is also owned by Severn Trent Water who use the area for sewage sludge disposal from their Stoke Bardolph treatment works. The extension of the Nitrogen Vulnerable Zones in England (implementing the EU Nitrate Directive) will reduce sludge application rates and restrict the timing of nitrogen fertiliser (i.e. sludge) application. The practice of sludge disposal onto agricultural land on the Stoke Bardolph Estate will remain for the foreseeable future.

Future assessment

6.70 The land allocated in the previous Plan contained an estimated 3-4 million tonnes sufficient for 12 – 16 years as a replacement to Holme Pierrepont.

6.71 Whilst Gunthorpe remains a suitable site for replacing Holme Pierrepont, it also represents the only acceptable local option for replacing Hoveringham, at least in terms of serving markets in the Nottingham area. Gunthorpe therefore has a key long-term role in maintaining local supplies of sand and gravel for the Nottingham area.

6.72 The mineral operator has indicated that Gunthorpe could initially serve as a replacement to Holme Pierrepont in 2004, where it would produce about 250,000 tonnes per annum. In 2007 production could then be increased to around 450,000 tonnes per annum to help replace Hoveringham. Although significantly less than the 750,000 tonnes per annum currently produced by both quarries, this is unlikely to cause any supply problems for a number of reasons. First, some reduction in overall capacity and number of quarries is desirable in order to match more closely lower levels of demand. Secondly, as noted earlier, a new quarry at East Leake has recently come on stream, which, if necessary, could help supply the Nottingham area. There is also surplus capacity north of Newark, which could serve markets to the north and east of Hoveringham. These comprise an uncommenced quarry at Cromwell and a mothballed quarry at Girton (see Paras 6.76 and 6.84 for details).

6.73 If production follows the above predictions, reserves at Gunthorpe within the existing allocation will be exhausted by 2014. In view of the site’s key role, additional reserves to the west are also allocated. This area contains an estimated 2.5 million tonnes, sufficient for a further 5 years. This larger area probably represents the ultimate acceptable limits of this proposed quarry.
main constraint being that any further extensions would inevitably begin to encroach towards residential areas.

6.74 The mineral operator has indicated that part of the allocation could be filled with inert waste. This may principally comprise construction and demolition waste that is not suitable for use as a secondary aggregate. The Waste Local Plan has indicated that a shortfall in disposal capacity for construction and demolition exists in the Greater Nottingham area and Gunthorpe is identified as a possible local option to help meet this shortfall. Partial backfilling will allow a more flexible approach to reclamation and avoid excessive water areas being created.

6.75 The main planning issues, which need to be taken into account, are:
(a) A new access will need to be constructed linking to the A6097, north of Gunthorpe village.
(b) The plant site should be sensitively located to minimise visual impact.
(c) Screening along the western and southern boundaries will be necessary to protect distant views from Bulcote and Shelford. Advance planting should be pursued to maximise effectiveness.
(d) Hedgerows along internal roads should be conserved and maintained, (except where needed for crossing points).
(e) Significant archaeological remains will need to be treated in accordance with Policy M3.24.
(f) Any proposal must include a comprehensive reclamation scheme covering the existing workings, where, as noted above, after-use issues remain to be resolved. In principle a water recreational and/or conservation after-use for both the existing workings and allocated areas appear to be acceptable. The existing SINC should be protected and where possible enhanced.
(g) The reclamation proposal should include agricultural reclamation based on a significant part of the site being reclaimed to original ground levels by filling with inert waste. This is to avoid the creation of excessive water areas.
(h) The viability of using barge transportation, for a proportion of the mineral output and waste input, should be demonstrated in accordance with Policy M3.15.

POLICY M6.6 GUNTHORPE ALLOCATION
150 hectares of land are allocated at Gunthorpe for sand and gravel extraction.

CROMWELL
Background
6.76 Cromwell Quarry was permitted in 1998, following its allocation in the previous plan. This planning permission has not been commenced, perhaps because local demand is insufficient to justify a new quarry. Cromwell Quarry
effectively replaces an adjacent worked out quarry, which now imports and processes river dredgings for secondary aggregates as part of the reclamation scheme (see Chapter 9 for details on the use of river dredgings as a secondary aggregate).

Future assessment

6.77 Reserves are estimated at 2.5 million tonnes and have a planned annual extraction rate of 200,000 tonnes. This means that even if the quarry was developed in the near future, reserves should be sufficient until at least 2017. No further provision is necessary for the current plan period.

6.78 If developed, Cromwell could help supply some of the markets currently met by Hoveringham Quarry and quarries in the Idle Valley once those sites close.

LANGFORD LOWFIELDS

Background

6.79 Langford Lowfields Quarry opened in 1990 in order to replace production from a worked out quarry at Newark. The quarry is being reclaimed in phases to a major wildfowl reserve. A quarter of the site has been fully restored and is managed by the RSPB who will take over the whole of the site once completed.

Future assessment

6.80 Reserves at Langford are estimated to last until 2017 based on annual production of 400,000 tonnes. No further provision is necessary for the current plan period.

BESTHORPE

Background

6.81 Extraction at Besthorpe goes back to at least the early 1940s, and the current permitted area now totals over 330 hectares. Large areas of land have been reclaimed to agriculture by infilling with PFA which, since the 1960s, has been imported by pipeline from High Marnham Power Station, until its closure in May 2003. A number of water areas, mostly of nature conservation value, including ‘The Heronry’ have also been created. A new wharf has been built which transports sand and gravel by barge to a new Europort at Wakefield and as a result annual production may increase from 250,000 to 400,000 tonnes.

6.82 The current extraction area is within a major planning permission granted in 1995 that saw the relocation of the plant and access. These workings are to be progressively reclaimed back to a nature reserve to be managed by the Nottinghamshire Wildlife Trust.

Future assessment

6.83 Current permitted reserves should be sufficient until 2013, based on annual production of 400,000 tonnes. Further extensions at Besthorpe are possible, but as the Plan is expected to be fully reviewed by 2009 it is considered more appropriate to assess the need for allocating further reserves at that time.
GIRTON

Background
6.84 Girton Quarry opened in the early 1950s and the permitted area extends to around 300 hectares. However, the quarry was ‘mothballed’ in late 2000 as a result of company reorganisation. This has meant that Girton Quarry is no longer required to supply markets in Humberside. These markets are now being supplied from reserves outside Nottinghamshire and the mineral operators consider there is insufficient local demand to justify keeping Girton open.

6.85 Girton, like Besthorpe, has used barge transport as well as road. Land allocated in the previous Plan was permitted in 1999 and when worked, will be reclaimed back to agriculture and wetland conservation.

Future assessment
6.86 The 1999 planning permission contained a resource of 4.9 million tonnes, which had a planned rate of extraction of 275,000 tonnes per annum. Prior to the quarry being mothballed this would have been sufficient until around 2016. In practice reserves should last much longer as the operator has indicated that Girton is only likely to re-open when needed to help replace demand met by the closure of other quarries, such as Hoveringham and Lound. This suggests that Girton will remain closed until at least 2004 and therefore will have sufficient reserves for the plan period.

RAMPTON

Background
6.87 Although planning permission was originally granted in 1966, extraction at Rampton did not commence until the early 1980s. Current reserves are expected to last until mid-2003. The quarry is unique in having barge-only access for mineral sales. Reclamation will be to agriculture by pumping in PFA from Cottam Power Station.

Future assessment
6.88 The current Plan allocated two areas at Rampton that amounted to 24 hectares of land. The small allocation has been permitted, but the main allocation east of the quarry has not been taken up. This is now expected to provide reserves of 350,000 tonnes that is anticipated to extend the life of the quarry to 2005.

6.89 Few on-site constraints exist, apart from the Cottam Wetlands SINC to the east of the site, and the remote location and barge-only access has made it a very suitable location for mineral extraction. Furthermore, Rampton has a supply of PFA, from the adjacent Cottam Power Station, which should allow reclamation back to original ground levels. This allocation is retained for the next Plan period.

6.90 Subject to a satisfactory working and reclamation scheme, which should aim to enhance the area’s biodiversity and the value of the SINC, no new issues are raised by this allocation.
POLICY M6.7 RAMPTON ALLOCATION

20 hectares of land are allocated at Rampton for sand and gravel extraction.

6.91 No further extensions are possible for geological reasons. In the short term the mineral operator has indicated that markets can be met by barge operations at Besthorpe. Thereafter, once reserves at Misson are exhausted, Sturton le Steeple will become available.

STURTON LE STEEPLE

Background

6.92 Sturton le Steeple is allocated as a partial replacement site to Rampton and quarries at Misson and Lound in the Idle Valley, where shortfalls are expected to arise in 2005 and 2007/8 respectively. Although the site is further from the main Yorkshire markets served by the Idle Valley it represents the closest available economic reserve of the required size.

Future assessment

6.93 The total allocation of 313 hectares contains an estimated 10 million tonnes of sand and gravel, with 1.25 million tonnes of mortar sand. Mineral extraction is limited to 123 hectares within the centre of the allocation, the remaining area being needed to accommodate the Plant site, potential wharf site, stockpiles overburden and soil heaps. The mineral operator has indicated that production of sand and gravel will start at around 250,000 tonnes per annum, when its main role will be to replace Rampton, but will increase to 500,000 tonnes per annum to replace shortfalls in the Idle Valley providing a reserve life of 22 years. This compares to the 650 – 700,000 tonnes per annum produced from the existing three quarries. Although a net loss in replacement production capacity, other sites in the Trent Valley north of Newark, including a dormant quarry at Girton (see Paragraphs 6.84-6.86) have the capacity to supply similar markets.

6.94 Sturton le Steeple is a relatively remote site with few on-site constraints. The main planning issues, which need to be taken into account, are
(a) the impact on the local highway network, which will require legal agreements to control traffic movements to avoid Sturton le Steeple and Retford;
(b) the plant site should be sensitively located to minimise visual impact;
(c) a new access will need to be constructed to the north of Sturton le Steeple. Advanced screening should be undertaken along the line of the proposed access to protect views from Sturton le Steeple. Access through the Power station may be possible and could offer an acceptable alternative option;
(d) the viability of using barge transportation for at least a proportion of production should be demonstrated in accordance with Policy M3.15;
(e) impact on footpaths and bridleways and need for suitable alternative routes;
(f) archaeological remains are also likely to exist and will require further investigation;
(g) the restoration will involve significant water areas. These should be used for significant nature conservation that will promote new habitats and species in line with the LBAP;
(h) 31% of the site is grade 3a agricultural land, as much of this should be returned to equivalent standards;
(i) important land drains cross the site. Drainage provisions should be retained during and after mineral extraction, in accordance with Policy M3.8.

6.95 It is possible that at least part of the workings could be filled with ash from Cottam and/or West Burton Power Stations. In principal, this may provide another acceptable reclamation option as it would enable a much greater area of the quarry to be returned to agriculture and would minimise the degree of landscape change. An important environmental consideration would be how the ash would be taken to the quarry, with a pipeline and/or internal haul routes likely to be the only acceptable options. The disposal of ash would also need to conform to policies in the adopted Waste Local Plan.

POLICY M6.8 STURTON LE STEEPLE ALLOCATION

313 hectares of land are allocated at Sturton le Steeple for sand and gravel extraction.

SUTTON AND LOUND
Background

6.96 This area has a complex planning and extraction history, which goes back to at least the 1940s. Extraction is from two quarries which with a combined annual output of 6-700,000 tonnes per annum are the most important source of sand and gravel in the Idle Valley.

6.97 A third small quarry at Chainbridge Lane, Lound ceased in 2001. This supplied a plant at Auckley, South Yorkshire. There were no options to extend this quarry and the operating company has since replaced it with a site at Misson (see para 6.111).

6.98 Sutton and Lound used to be the site of the largest PFA infilling scheme in the County, the ash being pumped by pipeline from Cottam Power Station. Filling began in the 1970s but ended in the early 1990s due to a major pipeline failure. PFA reclamation includes high-level lagoons, which visually have not proved to be a success. Extensive water areas also exist. Recent emphasis has been placed on developing a ‘wildlife corridor’ along the River Idle by preserving some existing water areas and allowing new areas to be developed. An area of exhausted, unrestored workings has been designated as a SINC and is currently being considered for SSSI status.
6.99 Lound Quarry is currently working land at Blaco Hill, which was allocated in
the previous Plan. The Bellmoor plant is being supplied with mineral worked
at Tin. The reclamation schemes for both current extraction areas include a
significant proportion of water, although some agricultural reclamation is
possible by backfilling with overburden and deepening the quarry floor and
using the material excavated to reclaim other areas back to previous levels.

6.100 Access to Lound quarry, which goes through the middle of the village, is not
ideal and was raised as an issue in the previous Plan. However, a new
access did not prove viable when Blaco Hill was permitted, and is unlikely to
be so now. Even if a new access is possible, a significant quantity of sand
and gravel will still pass through the village to reach the concrete block
making plant at Chainbridge Lane. This mineral currently goes direct to the
plant from the quarry so avoids passing through the village.

Future assessment

6.101 Reserves at Blaco Hill and Tin are likely to be worked out by 2004/5.

6.102 An existing allocation east of the River Idle, which contains an estimated 2
million tonnes of sand and gravel, remains to be taken up. The previous plan
noted that this could supply either plant and whilst both plants could process
the sand and gravel, the Lound Plant is much easier to reach by conveyor and
avoids disturbance to the wildlife area. Using Lound Plant would secure
reserves at Lound until 2008. The mineral operator has indicated that
production from Bellmoor/Tin will be transferred to Girton quarry (see
Paragraph 6.86).

6.103 The previous Plan assumed that most of this allocation would be reclaimed
back to agriculture with ash from Cottam Power Station. Some water areas
adjacent to the river could be included as part of the development of a ‘wildlife
corridor’. However closure of the ash pipeline effectively rules out agricultural
reclamation. Apart from the issue of creating more large water areas, the
presence of high quality agricultural land is a significant constraint.

6.104 The main planning issues, which need to be taken into account, are:

(a) The reclamation scheme should continue to promote the concept of a
wildlife corridor along the River Idle.

(b) Impacts on biodiversity and the opportunities for enhancing biodiversity
through habitat creation and management.

(c) 60% of the site is classified as best and most versatile agricultural land,
and much of this should be returned to equivalent standards.

(d) Full details on the archaeology of the site should be submitted and may
require further works to be carried out. Some areas may require
preservation in-situ.

(e) The retention of the ecologically valuable areas of Tin Holt with at least
an equivalent amount of woodland being replanted to replace those
areas lost, using species that meet LBAP targets which are in
accordance with the Countryside Appraisal. Ancient and species rich
hedgerows should be retained due to their habitat importance.
(f) Advanced screening measures should be implemented at an early stage to mitigate any impact upon Tiln Hamlet.

POLICY M6.9 LOUND ALLOCATION

119 hectares of land are allocated at Lound east of the River Idle for sand and gravel extraction.

6.105 This allocation is believed to represent the limits of the economic sand and gravel resource east of the Idle. Further resources, totalling 3 million tonnes, have been identified to the west of the Great North Road and south of Barnby Moor. Whilst this land could follow on from the allocation east of the Idle, this land is not without significant environmental constraints. These include the impact on residential amenity on Barnby Moor, archaeology and the Chesterfield Canal SINC. There is also the significant issue of cumulative impact within an area that has seen very extensive mineral extraction and changes to landscape character. These factors suggest that alternative replacement quarries, in the Trent Valley north of Newark, offer more environmentally acceptable solutions. In addition to the re-opening of Girton quarry noted above, a major new quarry at Sturton le Steeple is allocated for this purpose.

SCROOBY

Background

6.106 Sand and gravel has been worked in the Scrooby area since the 1930s when Rotherham Sand and Gravel Ltd opened up a quarry at Scrooby Top. This quarry originally worked glacial sand and gravel but then continued down into the Sherwood Sandstone (see Chapter 7, Para.7.50). The company has since supplied sand and gravel to the Scrooby Top plant from a number of small alluvial workings at Scrooby and Ranskill. Reclamation has included both water based and agricultural after-uses. Current workings are within two quarries known as Scrooby North and Scrooby South, which will also be reclaimed to a mixture of water and agricultural after-uses. A dormant planning permission exists east of the railway line.

Future assessment

6.107 Sand and gravel extraction has normally been very small scale and erratic, the main product at Scrooby being sand derived from Scrooby Top. In view of the uncertainty of future requirements and limited environmental impact, the previous plan adopted an Area of Search approach. This allowed further reserves to be permitted, which would maintain historic levels of production subject to environmentally acceptable schemes.

6.108 The life span of the sand and gravel reserves at the Scrooby North and South quarries remains uncertain, but is likely to be sufficient for the Plan period based on recent production. Further extensions are possible, but in view of the long term nature of the shortfall, it is proposed to defer consideration until the next review of the Plan.
MISSION

Background

6.109 Sand and gravel extraction at Misson goes back to at least the 1930s where a patchwork of quarries totalling over 600 hectares have been permitted. The thin deposits and low water table level have generally allowed sites to be rapidly worked and reclaimed back to agriculture at a lower level. Water areas have generally been limited to small sumps needed to assist drainage. There are currently two main quarries at Misson both of which supply processing plants in South Yorkshire. Grey sand is also produced on a small scale, which is considered separately below (see para 6.119).

6.110 **Misson (Finningley) Quarry**, produces around 300,000 tonnes per annum, and is the larger of the two quarries. The mineral is taken by internal haul road to a plant on adjacent land in South Yorkshire. The remoteness of this quarry from residential areas and rapid reclamation means that the workings have had little environmental impact.

6.111 **Newington North Quarry** produces approximately 100,000 tonnes per annum and serves as a replacement for a related quarry at Lound which closed in 2001. The mineral is taken by road for processing off-site at Auckley, South Yorkshire.

Future assessment

6.112 Misson (Finningley Quarry) is expected to increase output to 400,000 tonnes per annum which means that reserves will run out in 2006. Newington North has reserves until 2007.

6.113 The previous Plan relied on an ‘Area of Search’ approach at Misson, because the lack of reliable geological information on this extensive, but unpredictable, resource precluded the allocation of specific sites. A number of planning permissions were subsequently granted under that approach. However, recent geological investigations and environmental concerns suggest that environmentally acceptable options are limited to extensions to both existing sites, as considered below.

6.114 A 64 hectare northern extension to Misson (Finningley) Quarry contains an estimated 1.2 million tonnes which would provide reserves until 2009. This land represents a logical extension, which, subject to a satisfactory working and reclamation scheme, raises no new environmental issues.

6.115 A further northern extension, which would extend the life of this quarry to around 2012, exists in South Yorkshire. This is believed to represent the ultimate limits of this quarry and does not appear to be any more environmentally constrained than the allocated area. Any planning proposals affecting this land would be the responsibility of Doncaster Metropolitan Borough Council to determine and thus fall outside the scope of this Plan.
6.116 57 hectares of land adjacent to Newington North Quarry contain an estimated 1.5 million tonnes which should provide reserves for an additional 10 years, until 2017. Again, the extracted mineral would be transported to the operator’s processing plant in South Yorkshire. If the site is not worked as an extension to the operator’s existing quarry, this resource is likely to become sterilised due to it being far less economically viable to work.

6.117 The site is adjacent to the River Idle Washlands SSSI which covers an area of approximately 10 hectares. The SSSI also once covered the southern extension before being reduced in size when this land was drained for agricultural purposes. Careful working of the southern extension, coupled with a sensitive restoration scheme, provides an opportunity to reinstate the ecological value of the area which has been lost.

6.118 The main planning issues, that need to be taken into account, are:

(a) The reclamation scheme provides an opportunity to substantially contribute to local Biodiversity Action Plan targets for lowland wet grassland habitats (see Table 3.1) and also provide important wintering sites for bird communities;

(b) HGVs should not travel to and from the quarry through the village of Misson;

(c) The levels of HGVs entering and leaving the site should not result in an unacceptable environmental impact on residents in Newington;

(d) Important archaeological remains at the site should be fully recorded in accordance with an agreed scheme prior to extraction.
MISSON GREY SAND

6.119 Deposits of grey building sand occur erratically at Misson, sometimes below the sand and gravel and sometimes at the surface. Historically, this sand has been worked on a relatively small scale, often in association with sand and gravel extraction. This sand is used as grey mortar sand, which has a premium value, because most local mortar sands are red or yellow being derived from the Sherwood Sandstone.

6.120 The sand is currently worked at three sites comprising Misson West (as noted above), Misson Grange and Misson Bawtry Road.

6.121 Although counted as sand and gravel in planning and landbank terms, it would be inappropriate to treat it as normal sand and gravel resource when assessing ‘need’. This is because the grey sand serves a particular niche which alluvial sand and gravel cannot meet. It is therefore reasonable to allow the continued production of this sand, irrespective of the prevailing countywide sand and gravel landbank, providing it can be worked in an environmentally acceptable way and on a similar scale to historic levels.

6.122 The main local environmental issues concern the protection of the residential amenity of Misson and Newington villages, as well as the presence of significant archaeological remains.

POLICY M6.12 MISSON GREY SAND – AREA OF SEARCH

Proposals at Misson to extract grey sand will be permitted providing that:

(a) they have no significant adverse environmental impact, in particular on the amenity of Misson and Newington, and

(b) the proposal will maintain recent historic levels of grey sand production in the Misson area.