



Nottinghamshire
County Council

Minerals Local Plan Consultation

Additional Consultation on Sand and Gravel Provision

14 May – 11 July 2014

Have your say on the future of minerals provision in Nottinghamshire



Introduction

The Minerals Local Plan provides the planning policy context against which all proposals for new minerals development within Nottinghamshire will be assessed. This consultation exercise forms an informal stage in preparing the new Plan which will cover the period up to 2030.

This further consultation on Sand and Gravel provision in Nottinghamshire builds on the previous consultation that the County Council conducted during October, November and December 2013 on the Nottinghamshire Minerals Local Plan Preferred Approach document. The Preferred Approach document included the County Council's vision, strategic objectives, strategic policies, mineral provision policies (including land allocations) and development management policies making provision for adequate reserves of minerals to provide a steady supply to meet future needs.

The consultation responses received in respect of the County's future Sand and Gravel provision raised a number of concerns including updated delivery information, amendments to boundaries of both allocated and previously submitted sites and the submission of a further site for consideration. In light of the responses received, the County Council feel that it is necessary to undertake a further consultation on the Sand and Gravel provision element of the Preferred Approach document.

This consultation focuses on a revised Sand and Gravel provision chapter including amendments to the list of potential Sand and Gravel sites to be included in the future Minerals Local Plan for Nottinghamshire.

This additional consultation on Sand and Gravel provision includes 2 additional new sites at Barton in Fabis near Nottingham and Averham near Newark (Flash Farm) a further extension to the west of Langford Lowfields quarry and the deletion of the previously identified western extension to Girton quarry. The revised Policy (MP2) and justification text alongside a policies map and inset maps identifying each site location and an outline of key information in the form of site briefs is included in this document (Appendix 1 and 2).

Public consultation

This additional Sand and Gravel provision consultation document and accompanying 'Sustainability Appraisal for the revised Sand and Gravel Provision' document are published for public consultation for a six week period from **14 May to 11 July 2014**. The documents are available on our website (see below) or hard copies are available on request. Comments on the document can be made and viewed via our website. To ensure that the context of this additional consultation is understood, it may also be appropriate to refer to the 2013 Preferred Approach document. This can also be found on our website.

Comments on other parts of the Minerals Local Plan Preferred Approach will be considered if appropriate but previous responses to the Minerals Local Plan Preferred Approach remain valid and will not need to be submitted again.

Please consult the County Council's website to view the documents and to respond online at:

www.nottinghamshire.gov.uk/minerals

Alternatively you can email or write to us, using the response form, at the addresses shown below.

PLEASE NOTE THAT ALL COMMENTS THAT YOU MAKE WILL BE MADE PUBLIC.

Online www.nottinghamshire.gov.uk/minerals

Email development.planning@nottscc.gov.uk

Post

Planning Policy Team
Policy, Planning and Corporate Services Dept
Nottinghamshire County Council
County Hall
West Bridgford
Nottingham
NG2 7QP

Phone 0300 500 80 80 (customer contact centre)

This document can be made available in alternative formats or languages on request.

What happens next?

At the end of the consultation period the County Council will consider all comments received, alongside the comments received from the Preferred Approach consultation on the remainder of the Local Plan. Relevant comments will be incorporated into a Submission Draft consultation document ready for another public consultation period prior to formal submission of the document to the Planning Inspectorate for examination and formal adoption.

SUMMARY OF KEY CHANGES

This additional consultation document takes into account the responses received as a result of the previous consultations in relation to sand and gravel provision including amendments to the policy and justification text alongside revisions to the site development briefs, policies map and inset maps where appropriate.

The key changes to the future sand and gravel provision for Nottinghamshire from the previous Preferred Approach consultation include:

- Amended site boundary at Barnby Moor, near Retford (MP2m);
- Amended site boundary at Langford Lowfields South (MP2g) (to exclude the Scheduled Ancient Monument);
- Deletion of the western extension at Girton quarry;
- Additional western extension at Langford Lowfields (MP2i);
- Amended site boundary to Bawtry Road North (MP2b);
- New site at Barton-in-Fabis, near Nottingham (MP2q);
- New site at Flash Farm, Averham, Newark (MP2p).

MP2: Sand and Gravel provision

Introduction

In geological terms the sand and gravel resource is extensive, located in the Trent and Idle river valleys. Within the Trent Valley, production has historically been concentrated around Nottingham and Newark. This pattern has developed at least in part in response to a need to be close to the main markets for the mineral (due to sand and gravel being a low cost bulk material, meaning that haulage is a significant element of its cost). Currently between a third to a half of the County's production supplies markets in Yorkshire and Humberside, which the Idle Valley is well placed to serve.

POLICY MP2: SAND AND GRAVEL PROVISION

1. An adequate supply of sand and gravel will be identified to meet expected demand over the plan period from:

a) The extraction of remaining reserves at the following permitted sites:

- SGa Misson west
- SGb Newington South
- SGc Finningley
- SGd Sturton Le Steeple
- SGe Bawtry Road
- SGf Scrooby
- SGg Cromwell
- SGh Besthorpe
- SGi Girton
- SGj Langford Lowfields
- SGk East Leake

b) The following extensions to existing sites and new greenfield sites.

• Extensions to existing sites:

MP2a	Finningley Extension	30.6Ha
MP2b	Bawtry Road North	13.4Ha
MP2c	Scrooby North	12.0Ha
MP2d	Scrooby South	8.8Ha
MP2e	Besthorpe East	36.4Ha
MP2f	Besthorpe South	66.2Ha
MP2g	Langford Lowfields South	48.4Ha
MP2h	Langford Lowfields North	30.7Ha
MP2i	Langford Lowfields West	40.4Ha
MP2j	East Leake North	15.3Ha
MP2k	East Leake East	52.0Ha
MP2l	Cromwell South	39.4Ha

• New sand and gravel sites:

MP2m	Barnby Moor	54.2Ha
MP2n	Botany Bay	113.2Ha

MP2o Coddington	127.1Ha
MP2p Flash Farm	47.6Ha
MP2q Barton-in-Fabis	79.6Ha

Note: The above sites are shown on the Policies Map

The operation and restoration of the minerals sites contained within this policy will need to take account of the relevant site development brief contained within Appendix 2 of this document.

Justification

Based on the average production figures set out in the aggregate provision policy MP1, the plan needs to provide an estimated 49 million tonnes of sand and gravel over the plan period.

There are currently 11 permitted sand and gravel sites (SGa-k) located around the county containing estimated reserves of 19.3 million tonnes. Whilst these sites will initially help to maintain a seven year landbank and ensure continuity of supplies, there is a need to secure additional reserves over the Plan period.

Using the annual production figure and the estimated Sand and Gravel reserves from 2011 it is estimated that we need to provide an additional 30 million tonnes of sand and gravel up until 2030.

Since 2011, 4 extensions to existing sites have been permitted providing an additional 636,000 tonnes and are set out below:

Permission was granted in January 2014 for 2 fishing lakes at Lodge Farm close to Scrooby. This has resulted in the release of an estimated 36,000 tonnes of sand and gravel which will be processed through the Scrooby quarry processing plant. The identified allocations (MP2c and MP2d) are unaffected by this permission.

Two extensions have been permitted to the Bawtry Rd quarry near Misson. In 2011 a 3 year extension containing 80,000 tonnes was permitted followed by a further 5 year extension containing 130,000 tonnes in 2013. The 2013 extension reduces the size of the allocation (MP2b) identified in the Preferred Approach document, however this doesn't affect long term provision as the revised allocation still goes beyond the plan period.

An extension to East Leake quarry was permitted in 2013. This has resulted in the provision of an estimated 390,000 tonnes of sand and gravel. The Identified allocations (MP2j and MP2k) are unaffected by this permission.

It is nevertheless clear that the plan has to allocate further reserves to make up this shortfall in provision. Policy MP2 above identifies 12 extensions to existing sites (MP2a-l) and 5 new sites (MP2m-q) which will aim to provide adequate reserves of sand and gravel to meet the demand over the plan period. Together these sites are estimated to provide just over 29.24 million tonnes of reserves over the plan period.

The following table highlights how each of the extensions and new sites will contribute towards the shortfall.

Site	Reserves (million tonnes)	Operational period (inclusive)
<u>Extensions:</u>		
MP2a: Finningley	0.77	2014 to 2019 (2016-17 in Doncaster)
MP2b: Bawtry Road North	0.52*	2018 to beyond plan period
MP2c: Scrooby North	0.64	2018 to 2025
MP2d: Scrooby South	0.4	2026 to 2030
MP2e: Besthorpe East	2	2018 to 2027
MP2f: Besthorpe South	0.6	2028 to beyond plan period
MP2g: Langford South	3.8	2015 to 2022
MP2h: Langford North	2.5	2025 to 2030
MP2i: Langford West	1.25	2023 to 2025
MP2j: East Leake North	0.18*	2030 to beyond plan period
MP2k: East Leake East	2.34	2017 to 2029
MP2l: Cromwell South	0.8*	2027 to beyond plan period
Site	Reserves (million tonnes)	Operational period (inclusive)
<u>New Sites:</u>		
MP2m: Barnby Moor	1.1	2018 to 2023
MP2n: Botany Bay	2.4	2019 to 2030
MP2o: Coddington	4*	2023 to beyond plan period
MP2p: Flash Farm	3.08	2016 to 2028
MP2q: Barton-in-Fabis	2.86	2017 to 2029
TOTAL	29.24	

* Denotes tonnage available within the plan period

Given the permitted reserves at 2011, the additional extensions permitted since 2011 and the allocated sites set out above the plan will provide 49.17 million tonnes of sand and gravel over the plan period. Annual monitoring will be undertaken through the Local Aggregates Assessment document to ensure that adequate reserves are available over the plan period. Further information on the deliverability of the site allocations can be found in the delivery schedule background paper.

Site Information:

Misson West (SGa)

The existing permitted site is located 1.5km south west of Misson village and 4km north east of Bawtry. The quarry has permitted reserves which are expected to last until the end of 2018. There are no further extensions possible to this site.

Newington South (SGb)

This existing permitted site is located 2km south west of Misson Village and 3.5km north east of Bawtry. The quarry has permitted reserves which are expected to last until the end of 2018. There are no further extensions possible to the quarry and it will be restored to low lying wetland. The worked out quarry will be replaced by Barnby Moor (MP2m).

Finningley (SGc, MP2)

The existing permitted quarry is located to the south east of Finningley village and crosses the border between Nottinghamshire and Doncaster Metropolitan Borough Council (MBC). Permitted reserves are expected to be worked out by the end of 2015, although an extension to the quarry was put forward as part of the call for sites and is being allocated (MP2a). A planning application for the site which covers land within Nottinghamshire and Doncaster has recently been submitted (March 2014) but has yet to be determined. Sand and gravel will be worked in Nottinghamshire in 2014 and 2015 before moving over to Doncaster between 2016 and 2017, returning to Nottinghamshire for a further year (2018). Output is expected to be around 500,000 tonnes per annum in 2014 and 2015, falling to 160,000 in 2018. The quarry serves the South Yorkshire and North Nottinghamshire markets. The existing quarry will be restored to agricultural land and woodland.

Sturton Le Steeple (SGd)

The existing permitted area is located to the east of Sturton Le Steeple village, approximately 9km south of Gainsborough. The quarry was granted planning permission in 2008 but extraction has yet to commence. Planning permission is due to expire in 2017 but it is likely that the operator will seek a further extension of time. The planned output for the site is 500,000 tonnes per annum and has an expected life of 20 years. The quarry will be restored to agriculture and nature conservation.

Bawtry Road (SGe, MP2b)

The existing permitted quarry is located between Misson to the east and Newington to the south. The quarry was originally permitted in 2001 but has since been granted permission for two extensions in 2011 and 2013. This has resulted in the site having adequate reserves until the end of 2017. A northern extension to the quarry was put forward and is being allocated (MP2b). The extension will be commenced once existing permitted reserves have been worked out by the end of 2017. Output is planned at 40,000 tonnes per annum and will continue to use the existing plant site and access. Reserves are expected to last beyond the plan period.

Scrooby (SGf, MP2c, MP2d)

Extraction has taken place at Scrooby since the 1930s working both sand and gravel and Sherwood Sandstone. No sand and gravel extraction is currently taking place at

Scrooby quarry, however planning permission for the creation of 2 fishing lakes at Lodge Farm near Scrooby was granted in 2014. The creation of the lakes will release 36,000 tonnes of sand and gravel and this will be processed through the existing Scrooby quarry plant site until the end of 2016. Two extensions to the existing quarry were put forward during the 'call for sites' and have been allocated. The northern extension (MP2c) is expected to start in 2018. The allocation is expected to last 8 years until the end of 2025. Output is planned at 80,000 tonnes per annum and would utilise the existing processing plant. The Southern extension (MP2d) will replace Scrooby north in 2026. The allocation is expected to last 8 years. Output is planned at 80,000 tonnes per annum.

Cromwell Quarry (SGg, MP2l)

The existing quarry is located to the east of Cromwell village alongside the A1, 9km north of Newark. The quarry was granted planning permission in 1998 but has yet to be worked. The permission is due to expire in mid-2014, although the mineral operator has stated its intention to submit an application for an extension of time. The site has reserves sufficient for 12 years production. Due to the quarry location close to the A1 mineral could be transported to northern or southern markets. A southern extension (MP2l) was put forward and is being allocated. The extension will be commenced once the existing site is worked out at the end of 2026. Output is planned at 200,000 tonnes per annum and has an expected life of 14 years.

Besthorpe Quarry (SGh, MP2e, MP2f)

The existing quarry is located to the north west of Besthorpe village near Newark. The quarry has sufficient permitted reserves until the end of 2017. Output at the quarry is 200,000 tonnes per annum. Historically a proportion of the sand and gravel produced at the quarry was barged up the river to the Europort at Wakefield. However it is uncertain if this will continue in the future. The site is predominantly being restored to wetland habitats and is being managed by the Nottinghamshire Wildlife Trust. Two extensions were put forward and have been allocated. The eastern allocation (MP2e) has an expected life of 10 years. It would follow on from the permitted quarry with extraction starting in 2018, maintaining output at its current level until the end of 2027. The southern allocation (MP2f) would follow on from the eastern extension in 2028 maintaining output at its current level beyond the plan period.

Girton Quarry (SGi)

The existing quarry is located 8km north of North Collingham and 16km from Newark. The quarry is currently inactive but selling mineral from existing stockpiles and has permission until 2016. The operator has stated they are likely to submit an extension of time until 2030. Output at the quarry once it has been re-opened is planned at 150,000 -200,000 tonnes per annum. The quarry will be restored back to agriculture and wetland conservation.

Langford Lowfields Quarry (SGj, MP2g, MP2h, MP2i)

The existing quarry is located between Langford and Collingham, north of Newark. The quarry has sufficient permitted reserves until mid-2015 at a planned output of 500,000 tonnes per annum. The quarry is being reclaimed to a major wildfowl/wetland reserve which is being managed by the RSPB. A number of extensions were put forward and after assessing the sites, the southern, western and

northern extensions are being allocated. The southern allocation (MP2g) has an expected life of 8 years and will follow on from the existing permitted quarry until the end of 2022. Following the previous Preferred Approach consultation, the land containing the Scheduled Ancient Monument (SAM) has been removed from the allocation. The western allocation (MP2i) has an expected life of 3 years and is planned to be worked between 2023 and the end of 2025. The Northern allocation (MP2h) has an expected life of 6 years and is planned to be worked between 2025 and 2030. The additional extensions would maintain the existing output and utilise the existing plant site and access. The restoration of these areas would also contribute significantly to the existing wildfowl and wetland restoration scheme.

East Leake Quarry (SGk, MP2k, MP2j)

The existing permitted quarry is located 1km to the south of East Leake. The quarry has sufficient permitted reserves until the end of 2016 at an output of 180,000 tonnes per annum. The quarry is being restored to agriculture and nature conservation. As part of the call for sites two extensions were put forward and are being allocated. The eastern extension (MP2k) has an expected life of 13 years and would follow on from the permitted site maintaining output at its current level utilising the existing processing plant and access until the end of 2029.

The northern extension (MP2j) has an expected life of 4 years and will follow on from the previous extension maintaining output at its current level utilising the existing processing plant and access.

Barnby Moor (MP2m)

This is an allocation for a new green field site located approximately 1km north of Barnby Moor village and around 2.5km to the south of the village of Ranskill. In light of the responses received to the Preferred Approach consultation, the operator put forward an amendment to the allocation boundaries, moving the site further north away from Barnby Moor village. The revised allocation covers an area of 43.7ha and is expected to be operational in mid-2018 as a replacement to the existing Newington Quarry. Mineral from the site would be processed off site at the operators existing site at Auckley and has an estimated life of 5 years with an output of 220,000 tonnes per annum. The quarry would serve the South Yorkshire and North Nottinghamshire markets.

Botany Bay (MP2n)

This is an allocation for a new green field allocation located 3km northwest of Retford and 1km south of Barnby Moor. The allocation is expected to be operational in 2019 and act as a replacement to the Mission – Finningley quarry (SGc), although it could come forward earlier if demand increases. The site has a planned output of 200,000 tonnes per annum and is expected to last 12 years until 2030.

Coddington (MP2o)

This is an allocation for a new green field site located to the north east of Coddington, 6km east of Newark. The allocation is expected to be operational in 2023 as a replacement to the Barnby Moor quarry (MP2m). The site has an estimated life of 20 years and an output of 500,000 tonnes per annum. The quarry would serve the South Yorkshire and Nottinghamshire markets.

Flash Farm (MP2p)

This is an allocation for a new green field site located to the north west of Averham, 5km from Newark. The allocation is expected to be operational in 2016. The site has an estimated life of 13 years and an output of 250,000 tonnes per annum. Given its location the quarry would be able to serve a wide range of markets.

Barton-in-Fabis (MP2q)

This is an allocation for a new green field site located to the east of Barton-in-Fabis, 6km from Nottingham. The allocation is expected to be operational in 2017. The site has an estimated life of 13 years and an output of 200,000 tonnes per annum. The quarry would serve the Nottingham market.

Further information regarding site restoration for the individual allocations can be found in Appendix 2.

APPENDIX 1

POLICIES MAP AND INSET MAPS


(RELATING TO SAND AND GRAVEL PROVISION)

Nottinghamshire Minerals Local Plan Preferred Approach Policies Map

May 2014

LEGEND

Features

 County Boundary (Plan Area)



Transport Network

+++++ Railways
 — Core Road Network


Waterways

— Navigable
 — Other

Environmental Designations

 Special Area of Conservation (SAC)
 National Nature Reserve (NNR)

Hydrocarbons

 PEDL Licence Areas

Policies

Mineral Safeguarding and Consultation Areas (DM13)



 Sand and gravel
 Sherwood Sandstone
 Alluvial Sand and Gravel
 Limestone
 Brick Clay
 Gypsum
 Surface Coal

 Archaeological Resource Area (DM6)


Site Codes

SG = Sand and Gravel BC = Brick Clay
 SS = Sherwood Sandstone GY = Gypsum
 LS = Limestone SL = Silica Sand
 BS = Building Stone




Airfield Safeguarding (DM12)

 Airfields
 Safeguarding Areas

Insets - additional features

 Archaeological Resource Area (DM6)

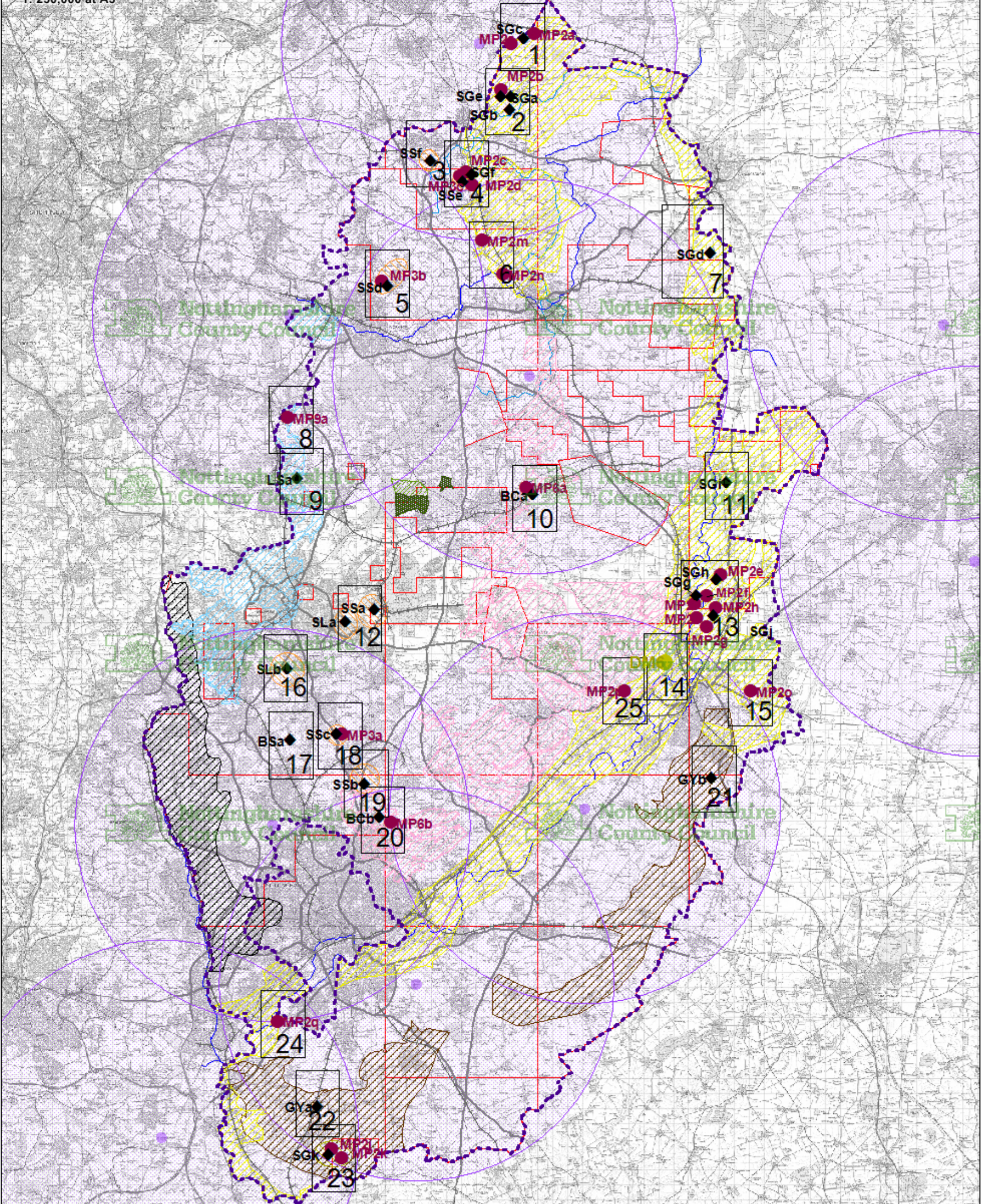
Environmental Designations

 Site of Special Scientific Interest (SSSI)
 SINC Geo
 SINC Bio

**Nottinghamshire Minerals Local Plan
Preferred Approach
Policies Map**

May 2014

1: 250,000 at A3



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**Nottinghamshire Minerals Local Plan
Preferred Approach
Policies Map**

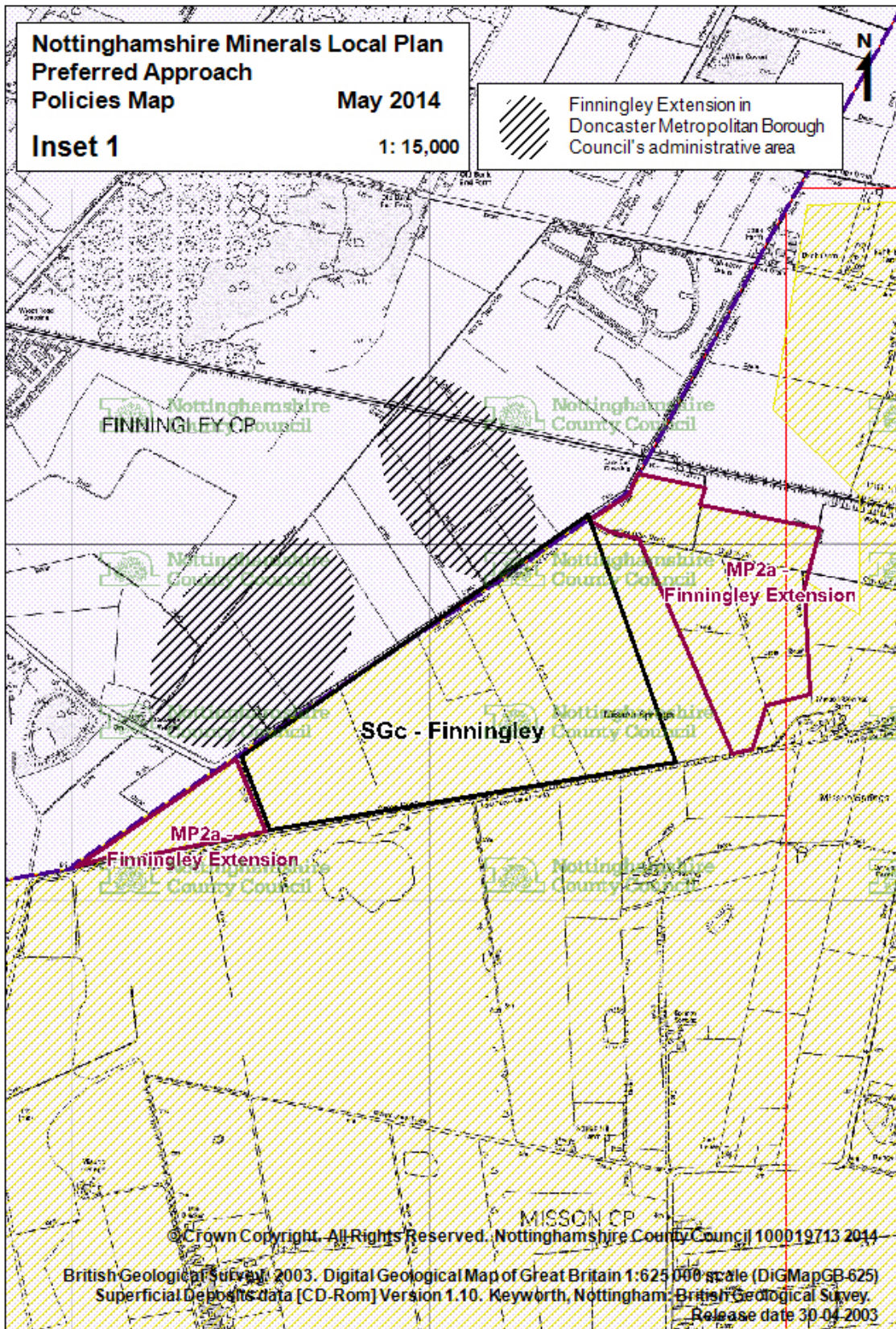
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Inset 1

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Finningley Extension in
Doncaster Metropolitan Borough
Council's administrative area



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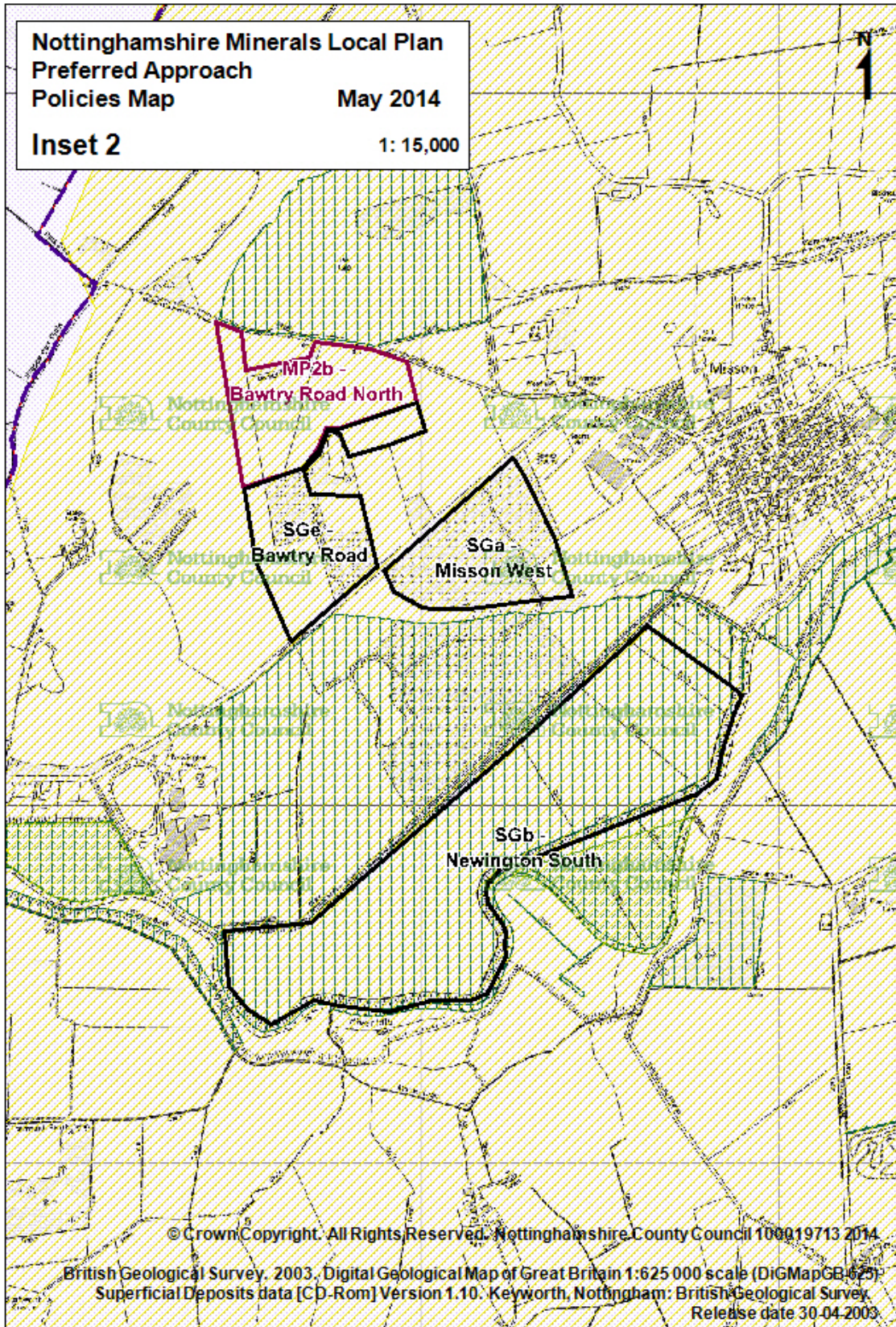
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**Nottinghamshire Minerals Local Plan
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Policies Map**

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Inset 2

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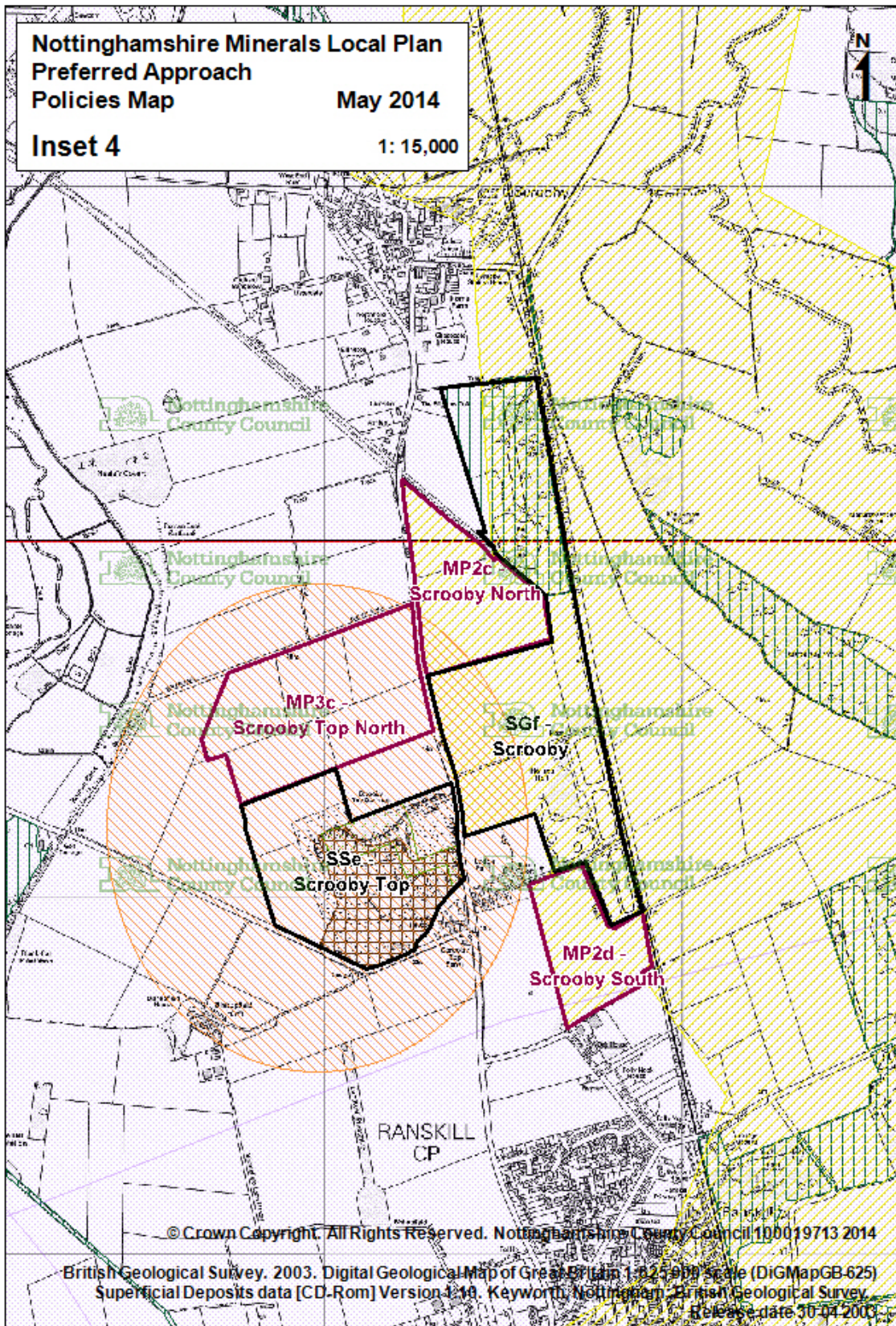
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Inset 4

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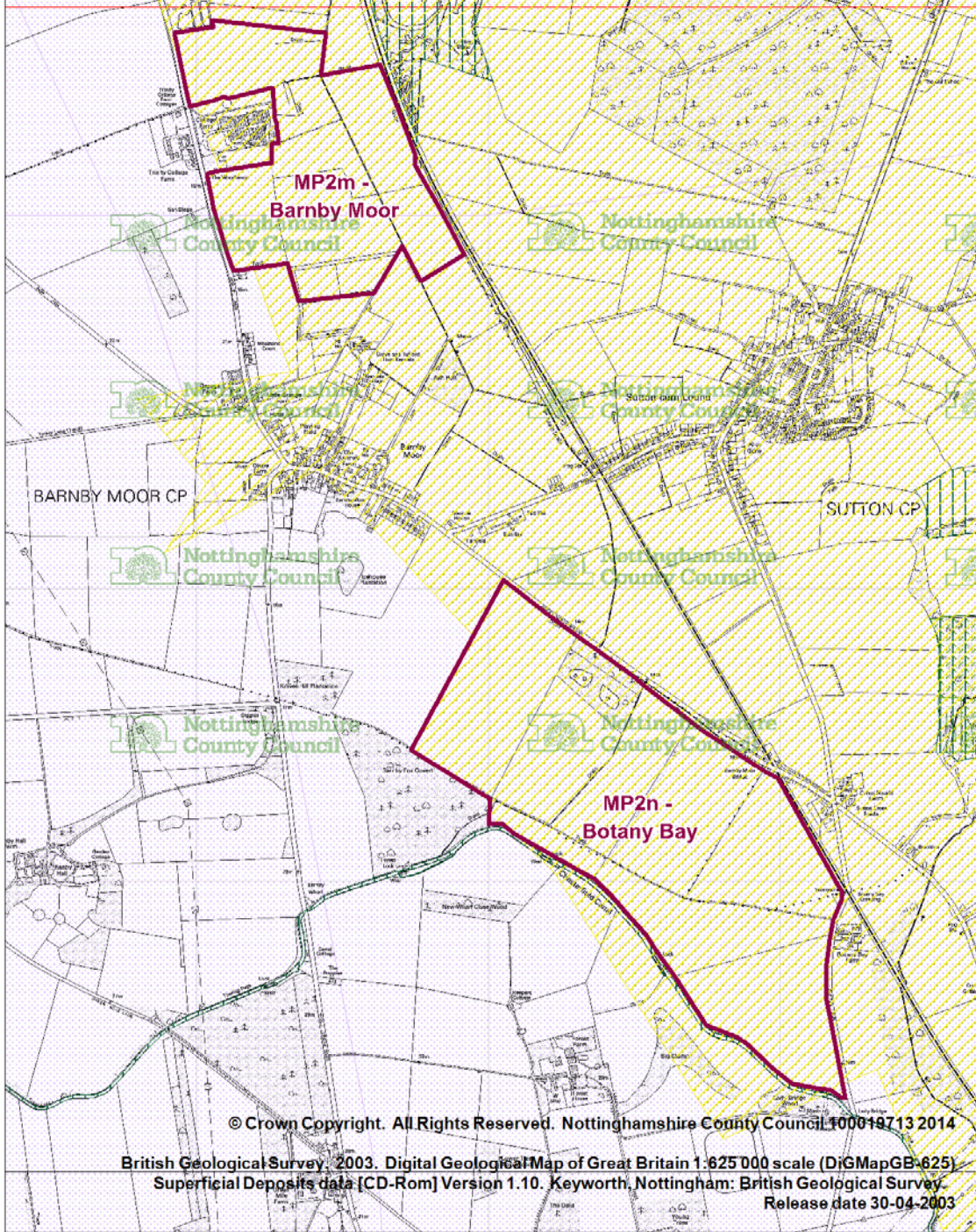
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Inset 6

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TORWORTH CP



BARNBY MOOR CP

SUTTON CP

**MP2n -
Botany Bay**

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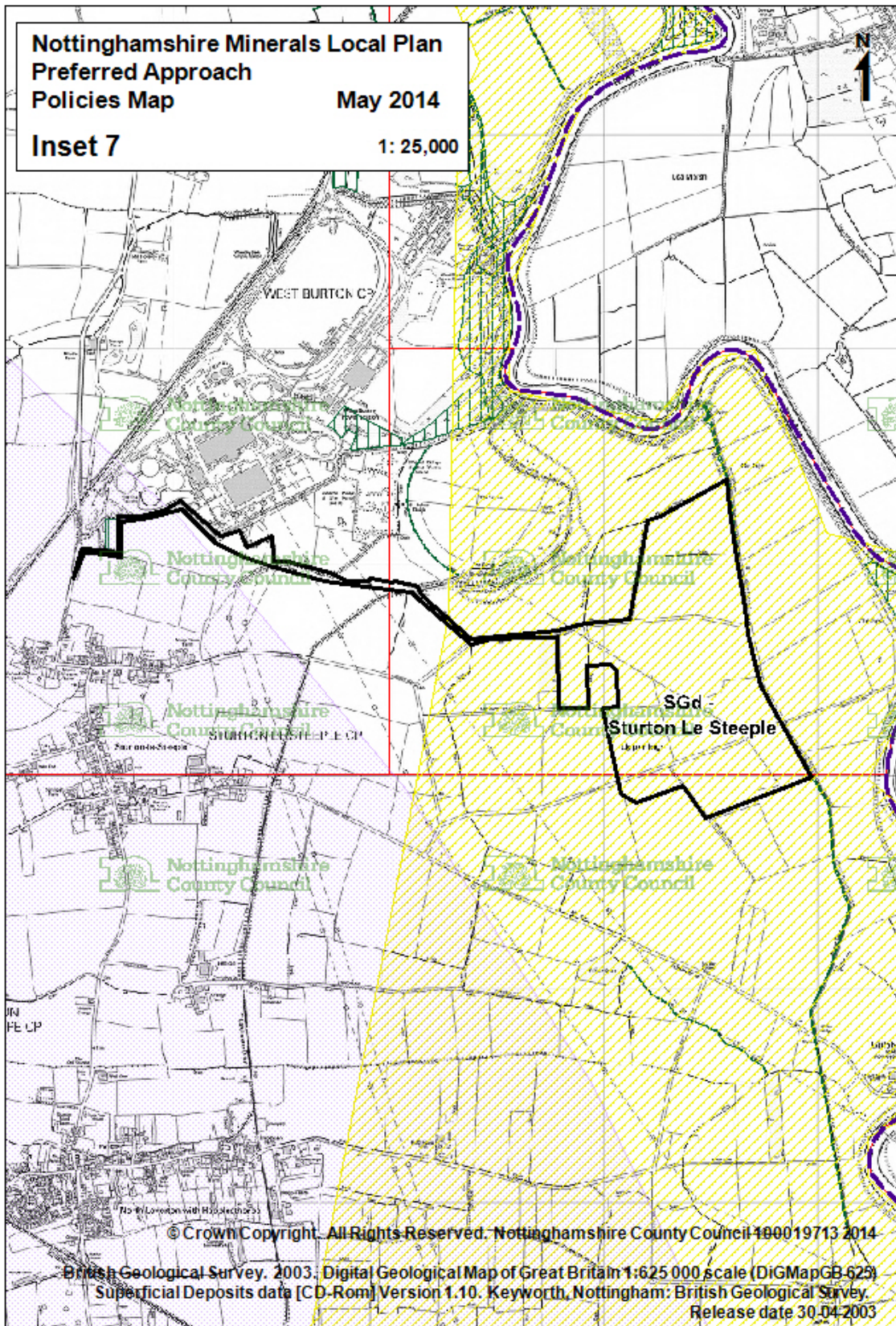
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**Nottinghamshire Minerals Local Plan
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Inset 7

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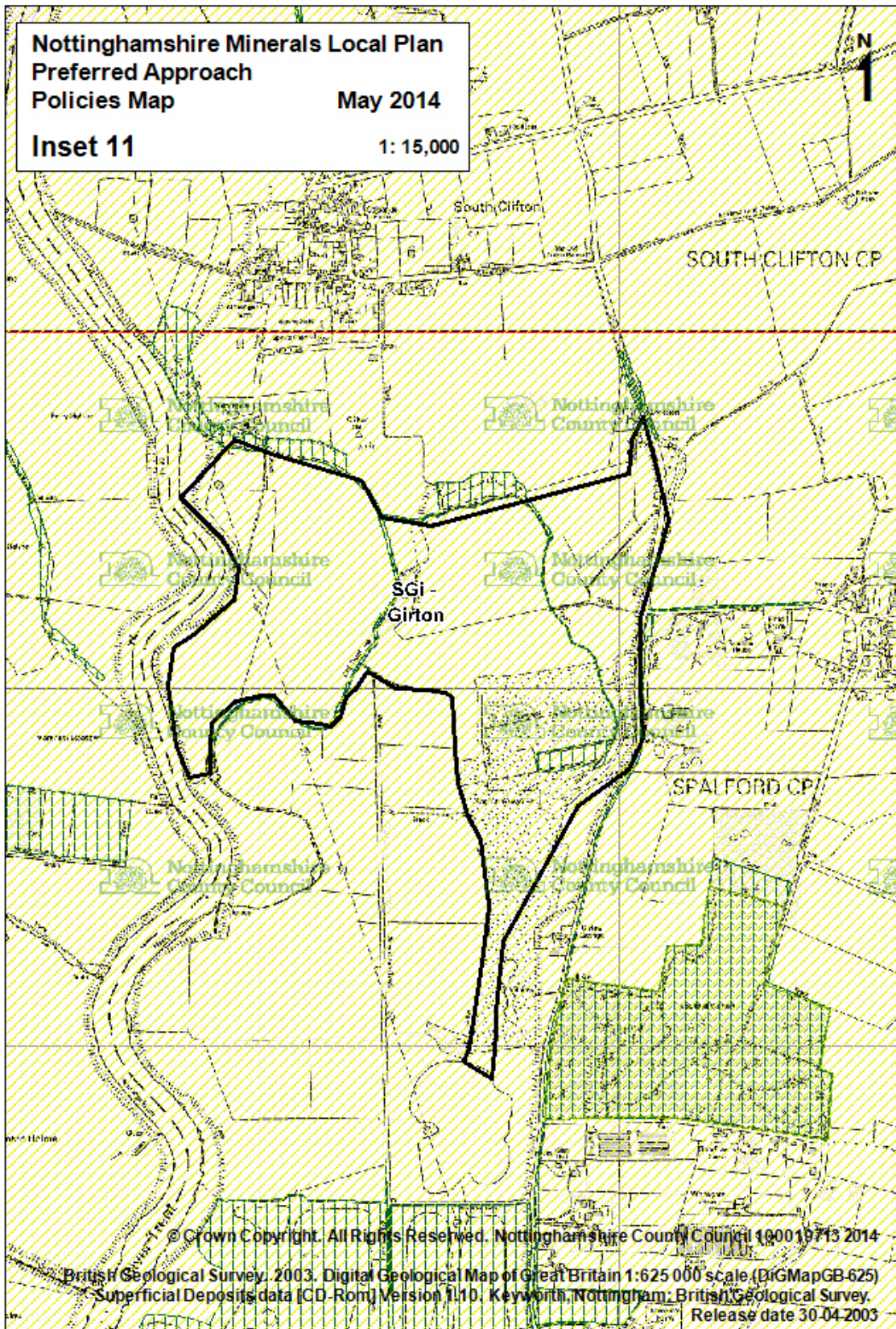
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**Nottinghamshire Minerals Local Plan
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Inset 11

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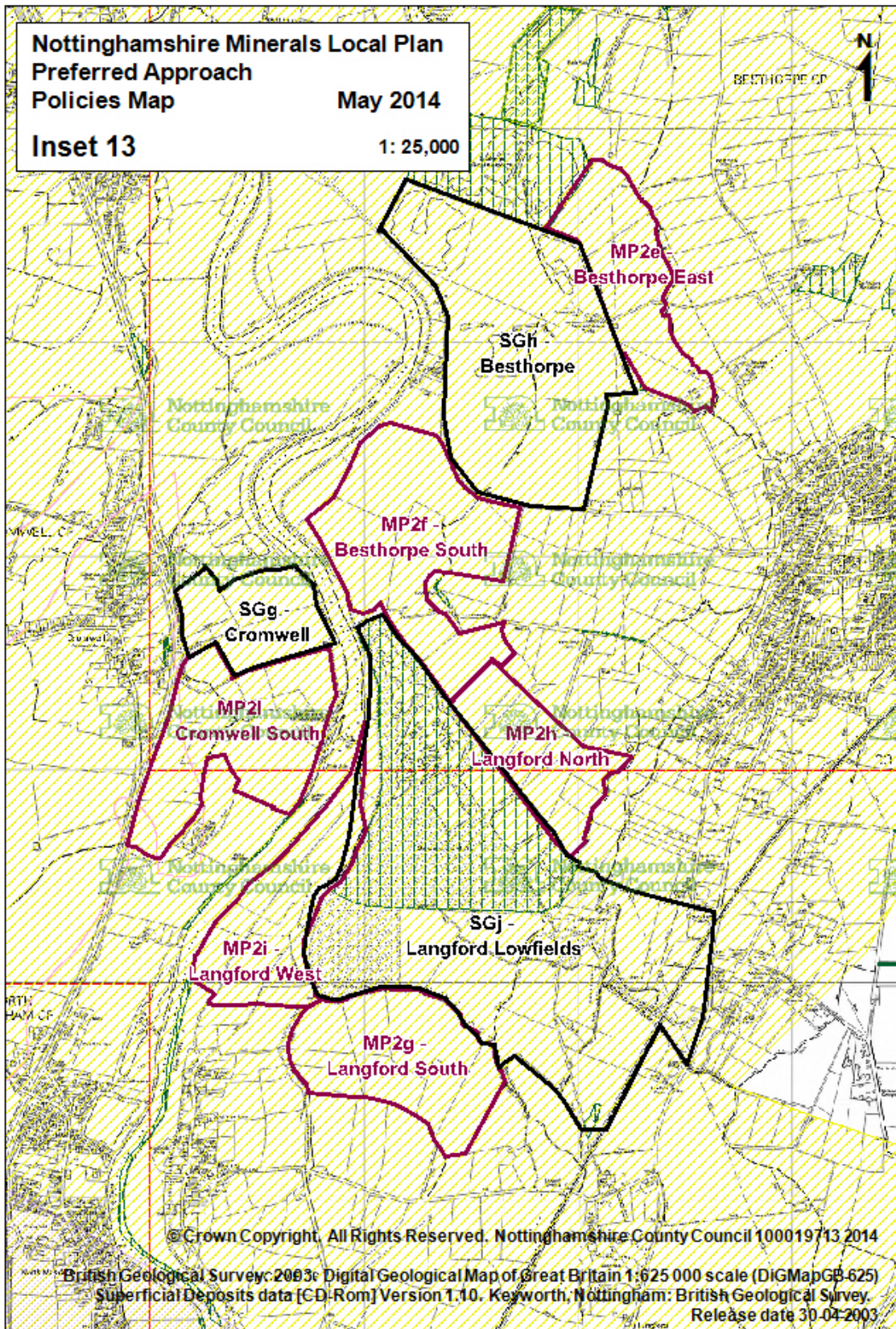
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Preferred Approach
Policies Map**

May 2014

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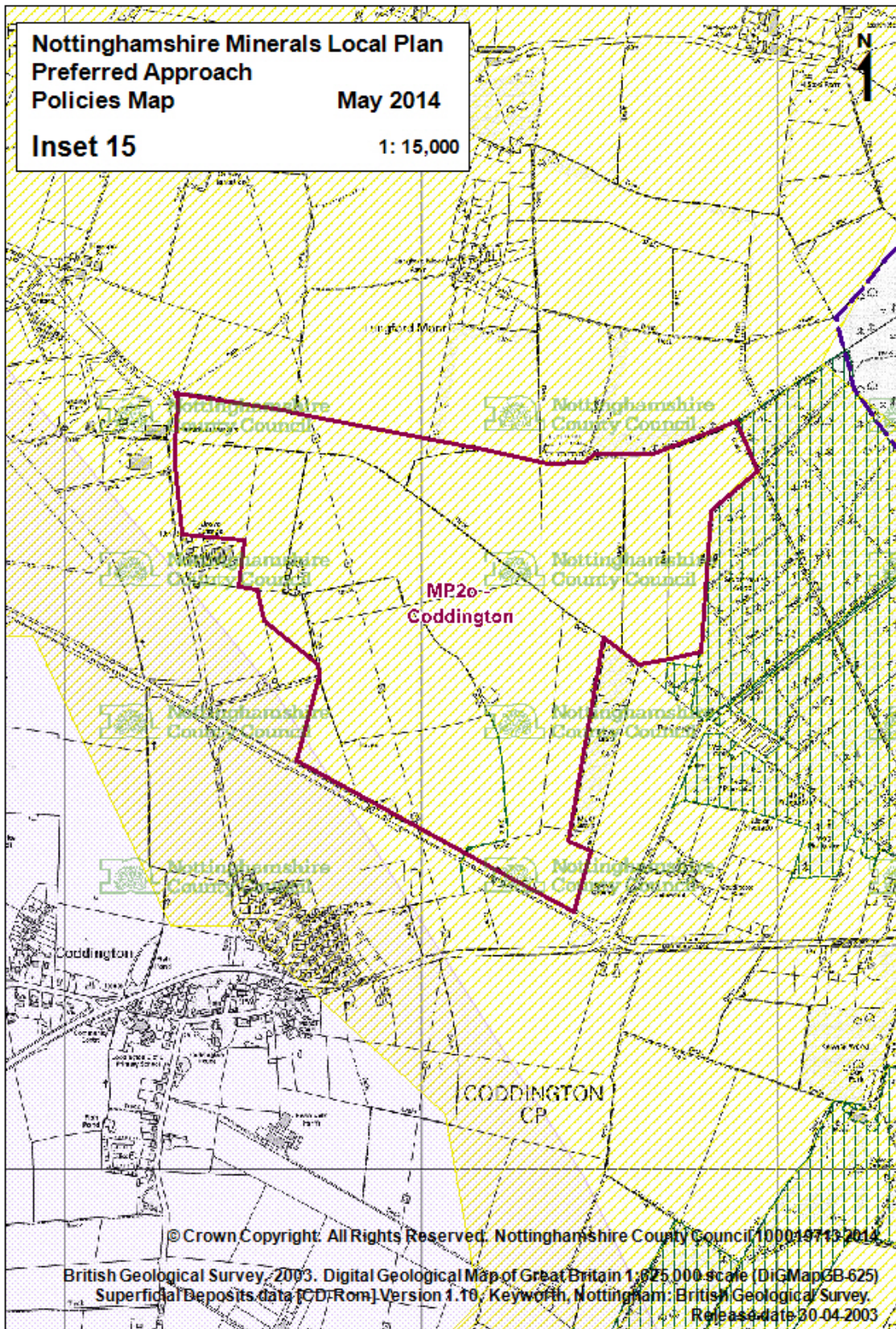


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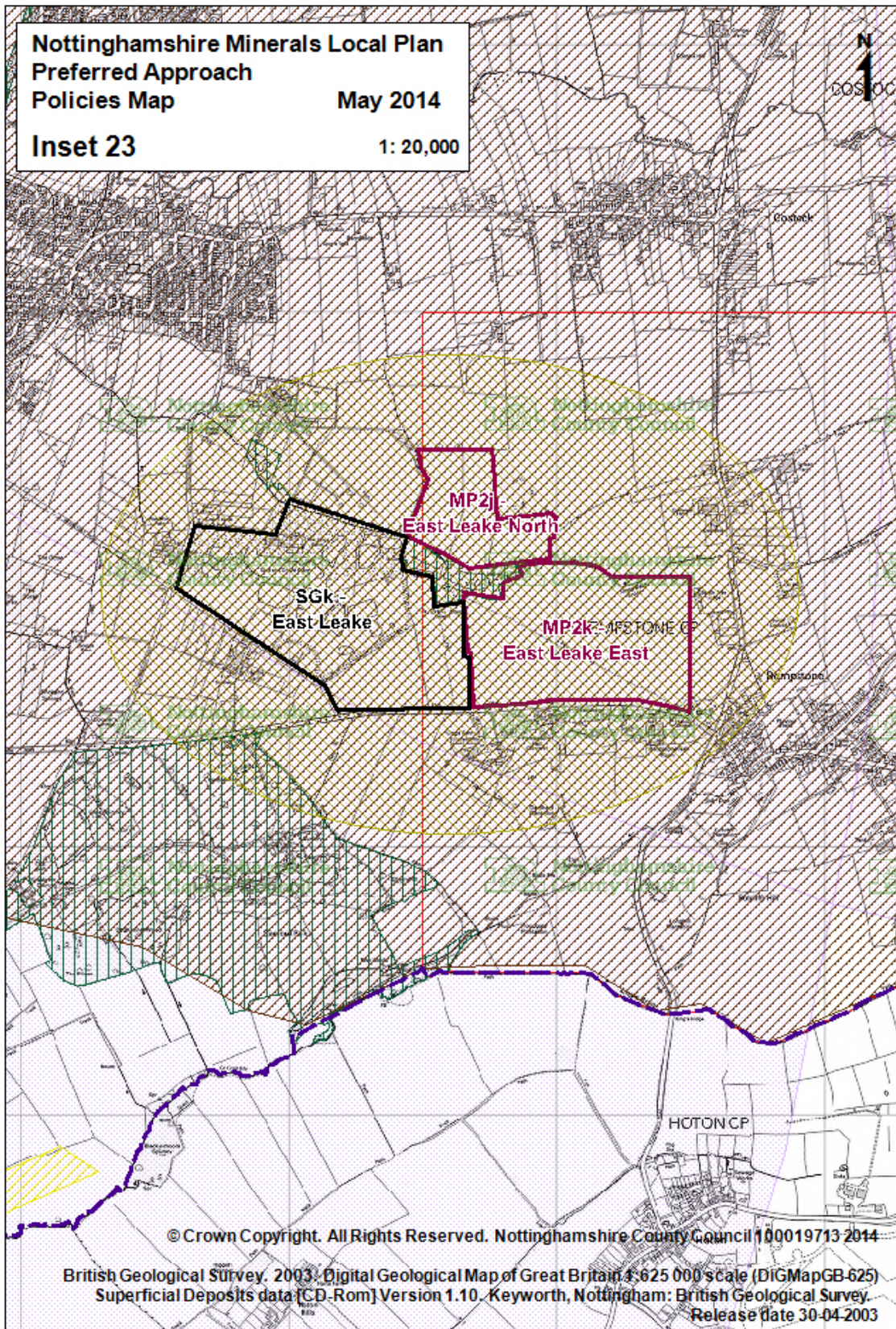
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**Nottinghamshire Minerals Local Plan
Preferred Approach
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May 2014

Inset 23

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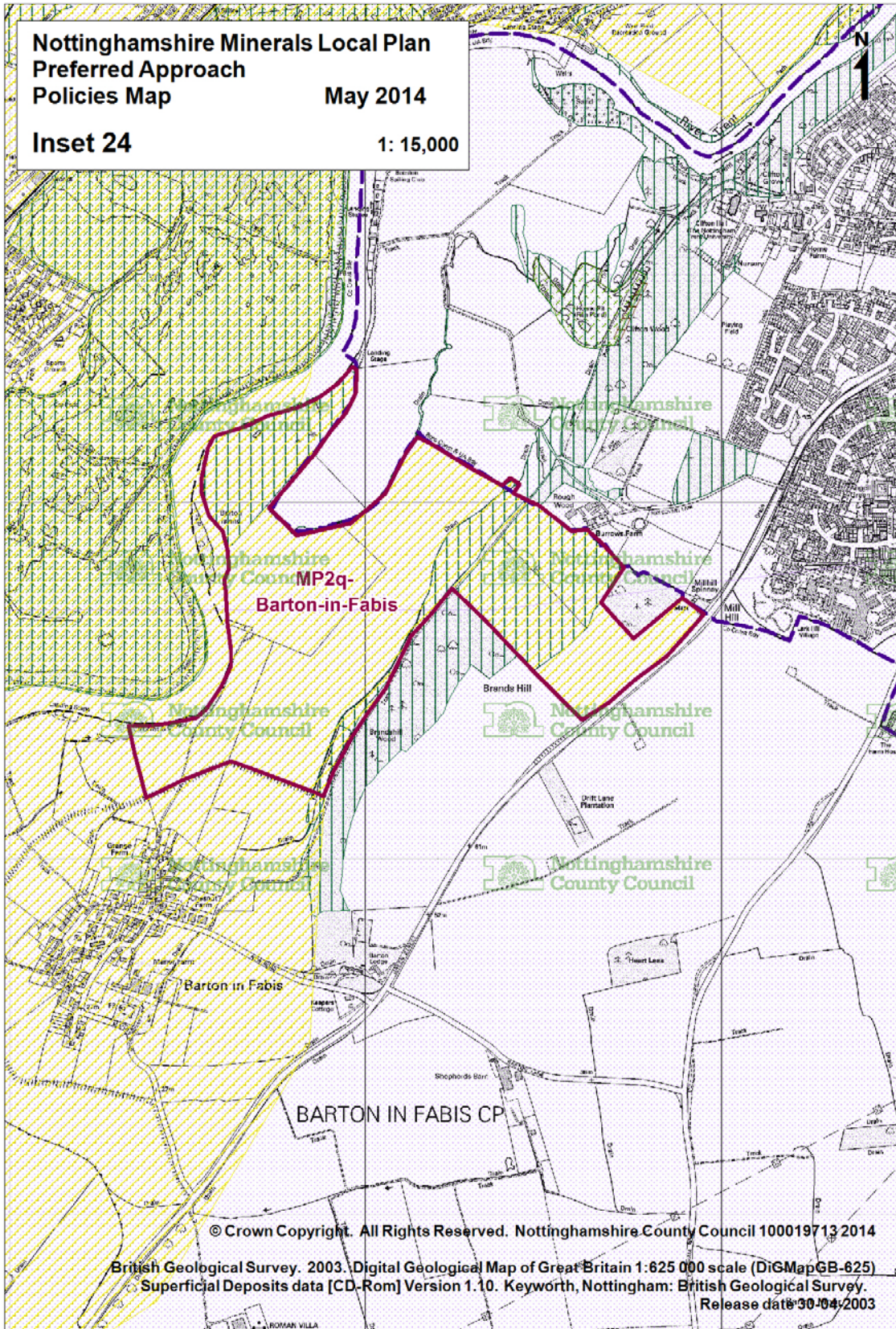


**Nottinghamshire Minerals Local Plan
Preferred Approach
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May 2014

Inset 24

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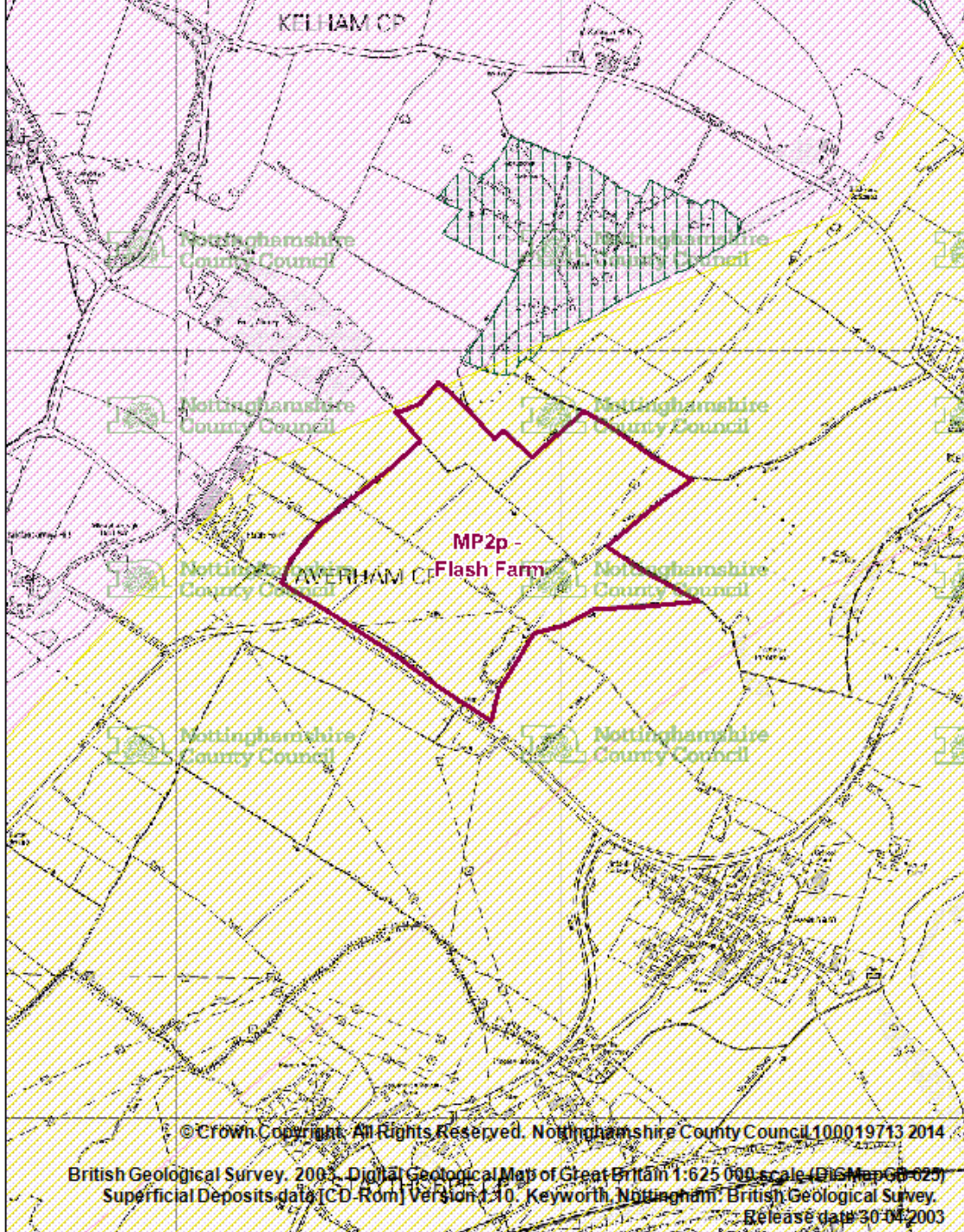


**Nottinghamshire Minerals Local Plan
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Release date 30/04/2003

APPENDIX 2

SITE DEVELOPMENT BRIEFS

(RELATING TO SAND AND GRAVEL PROVISION)

MP2a – Finningley Extension

Grid reference: 469066, 398482

District: Bassetlaw District Council

Parish: Misson Parish Council

Area: 56 hectares in total. 30.6 hectares in Nottinghamshire (east area 24.7ha, west area 5.9ha)

Total mineral resource: 1.52 million tonnes (770,000 tonnes in Nottinghamshire and 752,000 tonnes in Doncaster Metropolitan Borough Council)

Quarry restoration

Restoration of the site should be primarily biodiversity-led, however the high quality agricultural soils found on the site should be taken into account in the final restoration proposal reflecting policy DM3: Agricultural land and soil quality. Target restoration will depend on landform, hydrology and substrate characteristics. However, restoration should target the creation of:

- Wet grassland (Floodplain Grazing Marsh)

Other habitats that maybe appropriate for creation include:

- Lowland Heathland
- Lowland Fens
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland
- Oak-birch Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site.

Location

- East of Finningley village
- See Policies Map Inset 1

Environmental and cultural designations

- The northern area of the extension is closer to Misson Carr SSSI than the existing workings, so the impact of indirect effects will need to be considered
- Vegetation to Low Deeps Lane bridleway and the adjacent water course should be protected
- Ecological survey of water course will be needed prior to works to determine if there are protected species present
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve and Restore' – actions should encourage the conservation of distinctive features in good condition, whilst restoring elements or areas in poorer condition and removing or mitigating detracting features
- High potential for the site to contain non-designated archaeology.
- Potential impact on the setting of the Grade II listed Newlands Farm.

Access and transport

- Access on to public highway as per existing site (SGc – Finningley)

Amenity

- Screening to two properties on A614 near the entrance to Low Deeps Lane should be provided

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as site lies in Flood Zone 3
- Potential impact on the groundwater resource as the site is within a Source Protection Zone 3 and underlain by a Secondary Aquifer.

MP2b – Bawtry Road North

Grid reference: 467589, 395160

District: Bassetlaw District Council

Parish: Misson Parish Council

Area: 13.4 hectares

Total mineral resource: 824,000 tonnes

Quarry restoration

Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Dry Acid Grassland
- Lowland Heathland
- Wet Grassland (Floodplain Grazing Marsh)
- Lowland Fens
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland
- Oak-birch Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland. It should be noted that the site is adjacent to a former quarry area known as Rugged Butts (SINC/LWS 2/969), which is now a significant area of acid grassland. It would therefore be appropriate to seek to expand this area by creating similar habitats within the restoration at Bawtry Road North. There is also potential for flood risk improvements as part of the restoration.

Location

- South west of Mission and north east of Newington
- See Policies Map Inset 2

Environmental and cultural designations

- Indirect impact on the setting of the designated heritage assets at Austerfield and Misson and on the nearby valuable cluster of SINCs and SSSIs around Newington and Misson should be considered
- Woodland area along disused railway line should be retained
- Hedge planting along northern boundary and eastern edge of the site
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve and Restore' - actions should encourage the conservation of distinctive features in good condition, whilst restoring elements or areas in poorer condition and removing or mitigating detracting features.
- High potential for the site to contain non-designated archaeology.

Access and transport

- Access on to public highway as per existing site (SGe - Bawtry Road)

- Lorry routing and signage agreements to avoid the village of Misson to be retained

Amenity

- Misson Byaway No.2 (Byrons Lane), which follows the northern boundary of the site should be protected.

Water and flooding

- Potential impact on the groundwater resource as the site is within a Source Protection Zone 3 and underlain by a Principal Aquifer.
- Potential indirect hydrological links to the Hatfield Moor SAC.

MP2c – Scrooby North

Grid reference: 465400, 389809

District: Bassetlaw District Council

Parish: Scrooby Parish Council

Area: 12.0 hectares

Total mineral resource: 622,000 tonnes

Quarry restoration

Restoration of the site should be primarily biodiversity-led, however the higher quality agricultural soils should be taken into account in the final restoration proposal reflecting policy DM3; Agricultural land and soil quality. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Dry Acid Grassland
- Lowland Heathland
- Wet Grassland (Floodplain Grazing Marsh)
- Lowland Fens
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland
- Oak-birch Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland.

Location

- North west of Ranskill
- See Policies Map Inset 4

Environmental and cultural designations

- Working should avoid impacts on designated sites in the local area including Scrooby sand pits.
- Gap up hedgerow to north boundary and plant new hedgerow to eastern and southern boundaries
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve and Reinforce' – actions should conserve distinctive features and features in good condition, and strengthen and reinforce those features that may be vulnerable.
- Site is within an area with historical records of nightjar and woodlark.

Access and transport

- Access on to public highway as per existing site (SGf – Scrooby)
- Access through existing areas must not bring about unacceptable restoration delays

Amenity

- Restoration could create a new access from Green Lane (Scrooby Bridleway 4) to Scrooby Bridleway 1

Water and flooding

- Two licensed abstractions lie within the site. If dewatering occurs there is the potential that levels in the lagoon could be lowered, restricting abstraction
- Site lies within Ranskill Brook WFD water body which is currently undergoing a hydrological investigation to ascertain reasons for low flows
- Potential impact on the groundwater resource as the site is within a Source Protection Zone 3 and underlain by a Principal Aquifer.
- Potential indirect hydrological links to the Birklands and Bilhaugh SAC and Sherwood Forest p SPA.

MP2d – Scrooby South

Grid reference: 465749, 388835

District: Bassetlaw District Council

Parish: Scrooby Parish Council

Area: 8.8 hectares

Total mineral resource: 425,000 tonnes

Quarry restoration

Restoration of the site should be primarily biodiversity-led, however the higher quality agricultural soils should be taken into account in the final restoration proposal reflecting policy DM3; Agricultural land and soil quality. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Dry Acid Grassland
- Lowland Heathland
- Wet Grassland (Floodplain Grazing Marsh)
- Lowland Fens
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland
- Oak-birch Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland.

Location

- North west of Ranskill
- See Policies Map Inset 4

Environmental and cultural designations

- Working should avoid impacts on designated sites in the local area including Scrooby sand pits.
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve and Reinforce' – actions should conserve distinctive features and features in good condition, and strengthen and reinforce those features that may be vulnerable
- Site is within an area with historical records of nightjar and woodlark.
- High potential for the site to contain non-designated archaeology.
- Potential impacts on the setting of listed buildings at Scrooby Top Farmhouse and Cottages.

Access and transport

- Access on to public highway as per existing site (SGf – Scrooby)
- Access through existing areas must not bring about unacceptable restoration delays

Amenity

- Potential for creation of permissive or definitive access to restored areas
- Screening should be provided from residential properties to the north west of the site.

Water and flooding

- Potential indirect hydrological links to the Birklands and Bilhaugh SAC and Sherwood Forest p SPA.
- Potential impact on the groundwater resource as the site is within a Source Protection Zone 3 and underlain by a Principal Aquifer.

MP2e – Besthorpe East

Grid reference: 482294, 363202

District: Newark and Sherwood District Council

Parish: Collingham Parish Council

Area: 36.4 hectares

Total mineral resource: 1.96 million tonnes

Quarry restoration

Restoration of this site should be biodiversity-led as it has the potential to provide new areas of wetland to increase the overall resource and in doing so contribute to aspirations for this habitat over a 50 year time frame, as per the Trent Valley Biodiversity Opportunity Mapping Project. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Neutral Grassland
- Wet Grassland (Floodplain Grazing Marsh)
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland. Given the proximity of the site to Langford Lowfields, Besthorpe and Cromwell quarries, the restoration plan should aim to complement existing and proposed restoration schemes as well as existing habitats to maximise biodiversity gain in the area.

As the site lies within an area of very high multiple environmental sensitivity for ecology, heritage and landscape, the biodiversity-led restoration outlined above should be sensitive to these elements. This is particularly important to the northern and southern boundaries, where the site abuts hotspots of multiple environmental sensitivity (as per the Trent Valley Areas of Multiple Environmental Sensitivity Project).

Location

- North west of Collingham and south of Besthorpe village
- See Policies Map Inset 13

Environmental and cultural designations

- High archaeological potential will need to be managed, possibly including use of metal detector on conveyor belt
- Indirect impact on the nearby valuable cluster of SINC's and SSSIs around Besthorpe and Collingham and adjacent meadow area (Northcroft Lane Meadow) and its mature hedgerows should be taken into account
- Possible opportunities to enhance the feeder dykes into the River Fleet
- Plant native species hedge to south of existing access track to quarry.

- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Create and Reinforce' – actions should strengthen or reinforce distinctive features and patterns in the landscape, whilst creating new features or areas where they have been lost or are in poor condition
- High potential for non-designated archaeology on the site.
- Potential impacts on the setting of the conservation areas of Besthorpe and Collingham. Reference should also be made to the Collingham Conservation Area Character Appraisal (CACA)

Access and transport

- Access on to public highway as per existing site (SGh - Besthorpe)
- Existing routeing agreement to avoid Collingham village to be retained
- Maximise use of barge transportation
- Avoid use of Northcroft Lane (a byway) for access to A1133 by lorries

Amenity

- Footpath 17C should be diverted during working and likely crossing of Byway 41 by a conveyor to be managed
- Scope for rights of way improvement as part of the restoration works

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as site lies in Flood Zone 3
- Ensure the 9 metre easement from watercourse that forms the eastern boundary is suitable to withstand ingress of water into the quarry.
- Potential impact on the groundwater resource as the site is underlain by a Secondary Aquifer.
- Potential indirect hydrological impact on the Besthorpe Meadow SSSI. Wet working should be considered.

Other

- Site is crossed by a National Grid high voltage overhead electricity transmission line (4VK route)

MP2f – Besthorpe South

Grid reference: 481227, 362227

District: Newark and Sherwood District Council

Parish: Collingham Parish Council

Area: 66.2 hectares

Total mineral resource: 5 million tonnes

Quarry restoration

Restoration of this site should be biodiversity-led as it has the potential to provide new areas of wetland to increase the overall resource and in doing so contribute to aspirations for this habitat over a 5-10 year time frame, as per the Trent Valley Biodiversity Opportunity Mapping Project. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Neutral Grassland
- Wet Grassland (Floodplain Grazing Marsh)
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland. Given the proximity of the site to Langford Lowfields, Besthorpe and Cromwell quarries, the restoration plan should aim to complement existing and proposed restoration schemes as well as existing habitats to maximise biodiversity gain in the area.

As the site lies within an area of very high multiple environmental sensitivity for ecology, heritage and landscape, the biodiversity-led restoration outlined above should be sensitive to these elements. This is particularly important to the western area, where the site contains a multiple environmental sensitivity hotspot for ecology, heritage and landscape (as per the Trent Valley Areas of Multiple Environmental Sensitivity Project).

Location

- North west of Collingham and south west of Besthorpe village
- See Policies Map Inset 13

Environmental and cultural designations

- Indirect impact on the nearby valuable cluster of SINC's and SSSIs around Besthorpe and Collingham and protection of Horse Pool SINC.
- Potential impact on the setting of the Collingham Conservation Area and any of the listed buildings within it. Reference should also be made to the Collingham Conservation Area Character Appraisal (CACA)
- High archaeological potential to be managed
- Possible opportunities to enhance the feeder dykes into the Fleet

- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Create and Reinforce' – actions should strengthen or reinforce distinctive features and patterns in the landscape, whilst creating new features or areas where they have been lost or are in poor condition

Access and transport

- An existing quarry access on to public highway will be used. This will either be Besthorpe quarry or Langford Lowfields quarry depending on which quarry processes the mineral.
- Existing routeing agreement to be retained
- Maximise use of barge transportation (if worked through Besthorpe)

Amenity

- Minimise impact on existing rights of way. Crossing of footpath FP21 may be needed
- Scope for rights of way improvement as part of the restoration works

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as site lies in Flood Zone 3. No excavation within 45m of the toe of any flood defence or the River Trent itself
- Ensure the 9 metre easement from watercourse that flows from the site in a northerly direction is suitable to withstand ingress of water into the quarry.
- Potential impact on the groundwater resource as the site is underlain by a Secondary Aquifer.

MP2g – Langford Lowfields South

Grid reference: 481150, 359663

District: Newark and Sherwood District Council

Parish: Holme Parish Council

Area: 48.4 hectares

Total mineral resource: 5.4 million tonnes

Quarry restoration

Restoration of this site should be biodiversity-led as it has the potential to provide new areas of wetland to increase the overall resource and in doing so contribute to aspirations for this habitat over a 50 year time frame, as per the Trent Valley Biodiversity Opportunity Mapping Project. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Neutral Grassland
- Wet Grassland (Floodplain Grazing Marsh)
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland. Given the proximity of the site to Langford Lowfields, Besthorpe and Cromwell quarries, the restoration plan should aim to complement existing and proposed restoration schemes as well as existing habitats to maximise biodiversity gain in the area.

As the site lies within an area of very high multiple environmental sensitivity for ecology, heritage and landscape, the biodiversity-led restoration outlined above should be sensitive to these elements. The site also covers a multiple environmental sensitivity hotspot for heritage (as per the Trent Valley Areas of Multiple Environmental Sensitivity Project).

Location

- South west of Colingham and north east of Holme
- See Policies Map Inset 13

Environmental and cultural designations

- Impact on nearby Scheduled Ancient Monument and listed buildings and their settings, including Church of St Bartholomew, Langford Old Hall, Langford Crossing Gate House must be considered
- High archaeological potential to be managed, including use of metal detector on conveyor belt
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Create and Reinforce' – actions should strengthen or reinforce distinctive features and patterns in the landscape, whilst creating new features or areas where they have been lost or are in poor condition

Access and transport

- Access on to public highway as per existing site (SGj – Langford Lowfields)

Amenity

- Consideration of impact on Langford footpath 3, which runs between this extension and the existing site; protection (and stability issues) or rerouting need to be considered
- Restoration provides an opportunity to link Langford footpath 3 with the minor road from Home East to Langford Church
- Screening from eastern edge of Holme and from Langford Crossing Cottage, to be provided by offsite management of intervening hedgerows

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as part of site lies in Flood Zone 3. No excavation within 45m of the two flood defences or the River Trent
- Ensure the 9m easements from watercourses that form the western, northern and eastern boundaries of the site are suitable to withstand ingress of water into the quarry.
- Potential impact on the groundwater resource as the site is underlain by a Secondary Aquifer.

MP2h – Langford Lowfields North

Grid reference: 481811, 361325

District: Newark and Sherwood District Council

Parish: Collingham Parish Council

Area: 30.7 hectares

Total mineral resource: 1.5 million tonnes

Quarry restoration

Restoration of this site should be biodiversity-led as it has the potential to provide new areas of wetland to increase the overall resource and in doing so contribute to aspirations for this habitat over a 5-10 year time frame, as per the Trent Valley Biodiversity Opportunity Mapping Project. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Neutral Grassland
- Wet Grassland (Floodplain Grazing Marsh)
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland. Given the proximity of the site to Langford Lowfields, Besthorpe and Cromwell quarries, the restoration plan should aim to complement existing and proposed restoration schemes as well as existing habitats to maximise biodiversity gain in the area.

As the site lies within an area of very high multiple environmental sensitivity for ecology, heritage and landscape, the biodiversity-led restoration outlined above should be sensitive to these elements. This is particularly important to the eastern edge where the site is bounded by a multiple environmental sensitivity hotspot for ecology, heritage and landscape (as per the Trent Valley Areas of Multiple Environmental Sensitivity Project).

Location

- South west of Colingham and north east of Holme
- See Policies Map Inset 13

Environmental and cultural designations

- Protection of the nearby Conservation Area of Collingham and its listed buildings. Reference should also be made to the Collingham Conservation Area Character Appraisal (CACA)
- Protection of Horse Pool SINC and Besthorpe Meadow SSSI must be considered
- High archaeological potential to be managed, including use of metal detector on conveyor belt

- Retain existing strong mixed species hedgerows and incorporate into restoration design as far as possible
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Create and Reinforce' – actions should strengthen or reinforce distinctive features and patterns in the landscape, whilst creating new features or areas where they have been lost or are in poor condition
- High potential for the site to contain non-designated archaeology

Access and transport

- Access on to public highway as per existing site (SGj – Langford Lowfields)

Amenity

- Protection or suitable management of South Collingham footpath 1 and Langford footpaths 9 and 10
- Opportunity through restoration phase to resolve the anomaly of South Clifton footpath 2, which is currently dead-ended
- Provide screening of site from Westfield Farm

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as site lies in Flood Zone 3
- Ensure the 9m easement from the watercourse along the southern boundary is suitable to withstand ingress of water into the quarry.
- Potential impact on the groundwater resource as the site is underlain by a Secondary Aquifer.

Other

- The site is crossed by a National Grid high voltage overhead electricity transmission line (4VK route)

MP2i – Langford Lowfields West

Grid reference: 480707, 360532

District: Newark and Sherwood District Council

Parish: Langford, North Muskham and Holme Parish Councils

Area: 40.4 hectares

Total mineral resource: 1 million tonnes

Quarry restoration

Restoration of this site should be biodiversity-led as it has the potential to provide new areas of wetland to increase the overall resource and in doing so contribute to aspirations for this habitat over a 50 year time frame, as per the Trent Valley Biodiversity Opportunity Mapping Project. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Reedbed
- Wet Grassland (Floodplain Grazing Marsh)
- Marsh and Swamp
- Ponds

Other habitats that may be appropriate for creation include:

- Wet Woodland
- Lowland Neutral Grassland

Given the proximity of the site to Langford Lowfields, Besthorpe and Cromwell quarries, the restoration plan should aim to complement existing and proposed restoration schemes as well as existing habitats to maximise biodiversity gain in the area.

Restoration should avoid habitat packing, where small areas of lots of habitats are packed into the site. Where possible opportunities to naturalise the channel and reconnect the river with its natural floodplain should be considered.

As the majority of the site lies within an area of very high multiple environmental sensitivity for ecology, heritage and landscape, the biodiversity-led restoration outlined above should be sensitive to these elements. The site also covers a multiple environmental sensitivity hotspot for landscape (as per the Trent Valley Areas of Multiple Environmental Sensitivity Project).

Location

- South west of Collingham and north east of Holme
- See Policies Map Inset 13

Environmental and cultural designations

- High archaeological potential (including high potential for organic remains) to be managed, including use of metal detector on conveyor belt
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve and Reinforce' – actions should conserve distinctive features and features in good condition, and strengthen and reinforce those features that may be vulnerable

Access and transport

- Access on to public highway as per existing site (SGj – Langford Lowfields)

Amenity

- Protection or suitable management of Holme footpath 3 and Langford footpaths 3 and 7 (all part of the Trent Valley Way)

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as site lies in Flood Zone 3.
- No excavation within 45m of the toe of any flood defence or the River Trent itself

MP2j – East Leake North

Grid reference: 456639, 325219

District: Rushcliffe Borough Council

Parish: Costock Parish Council

Area: 15.3 hectares

Total mineral resource: Approximately 750,000 – 1 million tonnes

Quarry restoration

Restoration of the site should be primarily biodiversity-led, however the higher quality agricultural soils should be taken into account in the final restoration proposal reflecting policy DM3; Agricultural land and soil quality. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Neutral Grassland
- Wet Grassland (Floodplain Grazing Marsh)
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland
- Mixed Ash-dominated Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland.

Location

- South east of East Leake, south west of Costock and north west of Rempstone
- See Policies Map Inset 23

Environmental and cultural designations

- High archaeological potential to be managed, possibly through use of strip, map and sample method
- Retain internal hedgerows and hedgerow trees as far as possible
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve and Enhance' - actions should protect or safeguard key features and characteristics and improve existing features which may not be currently well-managed or where existing features are of good quality but could be of greater benefit if improved.
- Potential impact on the site of Old St Peters Church.

Access and transport

- Possible continued use of existing access (from SGk – East Leake) on to public highway

Amenity

- Protection of East Leake footpath 1, an important route on the southern boundary of the site

- Provide screening from site to property to east

Water and flooding

- Flooding issues downstream require strict control of water discharge from this site.
- Potential impact on the groundwater resource as the site is underlain by a Secondary Aquifer.

MP2k – East Leake East

Grid reference: 457187, 324743

District: Rushcliffe Borough Council

Parish: Rempstone Parish Council

Area: 39.4 hectares

Total mineral resource: 2.2 million tonnes

Quarry restoration

Restoration of the site should be primarily biodiversity-led, however the higher quality agricultural soils should be taken into account in the final restoration proposal reflecting policy DM3; Agricultural land and soil quality. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Neutral Grassland
- Wet Grassland (Floodplain Grazing Marsh)
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland
- Mixed Ash-dominated Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland. Choice of habitats should ensure that there is no increase in the risk of bird strike (on East Midlands Airport flight path).

Location

- South of East Leake
- See Policies Map Inset 23

Environmental and cultural designations

- Protection of number of listed buildings and their setting; Rempstone Hall, Church of All Saints, Clifton Lodge and Stanford Park and protection of adjacent Sheepwash Brook Wetlands SINC must be considered
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve and Enhance' - actions should protect or safeguard key features and characteristics and improve existing features which may not be currently well-managed or where existing features are of good quality but could be of greater benefit if improved.
- High potential for the site to contain non-designated archaeology.
- Potential impact on the site of Old St Peters Church.

Access and transport

- Access on to public highway as per existing site (SGk – East Leake)

Amenity

- Provide screening for properties on the A6006 to the south and to Beech Tree Lodge to the east.

Water and flooding

- Flooding issues downstream require strict control of water discharge from this site.
- Potential impact on the groundwater resource as the site is underlain by a Secondary Aquifer.

MP2I – Cromwell South

Grid reference: 480401, 361237

District: Newark and Sherwood District Council

Parish: Cromwell and North Muskham Parish Councils

Area: 53.2 hectares

Total mineral resource: Estimated 2.9 million tonnes

Quarry restoration

Restoration of the site should be primarily biodiversity-led, however the high quality agricultural soils found on the site should be taken into account in the final restoration proposal reflecting policy DM3: Agricultural land and soil quality. Target restoration will depend on landform, hydrology and substrate characteristics.

However, priority habitats could include:

- Lowland Neutral Grassland
- Wet Grassland (Floodplain Grazing Marsh)
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland. Given the proximity of the site to Langford Lowfields, Besthorpe and Cromwell quarries, the restoration plan should aim to complement existing and proposed restoration schemes as well as existing habitats to maximise biodiversity gain in the area.

In addition, opportunities to install a fish pass to bypass Cromwell Lock should also be explored, in conjunction with the Environment Agency.

Location

- East of Cromwell Village
- See Policies Map Inset 13

Environmental and cultural designations

- Protection of the nearby SINC
- Impact on the setting of the scheduled monument to south east and the setting of the listed buildings at Cromwell including St Giles Church should be considered.
- High archaeological potential to be managed
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Create and Reinforce' – actions should strengthen or reinforce distinctive features and patterns in the landscape, whilst creating new features or areas where they have been lost or are in poor condition

Access and transport

- Access on to public highway as per the existing permitted site (SGg – Cromwell)

Amenity

- Protection of Cromwell footpath 5, an important access point to Cromwell Lock and the River Trent, which is the boundary between the existing site and this extension
- Restoration should include provision of circular walking routes in the Cromwell and North Muskham areas.
- Screening to the western boundary of the site to minimise visual impact.

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as site lies in Flood Zone 3
- Ensure the 9 metre easement from the watercourse adjacent to the south western boundary of the site is suitable to withstand ingress of water into the quarry.
- Potential impact on the groundwater resource as the site is underlain by a Secondary Aquifer.

MP2m – Barnby Moor

Grid reference: 466445, 385271

District: Bassetlaw District Council

Parish: Barnby Moor Parish Council

Area: 54.2 hectares

Total mineral resource: 1.1 million tonnes

Quarry restoration

Restoration of the site should be primarily biodiversity-led, however the high quality agricultural soils should be taken into account in the final restoration proposal reflecting policy DM3; Agricultural land and soil quality. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Dry Acid Grassland
- Lowland Heathland
- Wet Grassland (Floodplain Grazing Marsh)
- Lowland Fens
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland
- Oak-birch Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland to complement the nearby Idle Valley Nature reserve.

Location

- North of Barnby Moor and south of Ranskill
- See Policies Map Inset 6

Environmental and cultural designations

- Protection of the listed building in Barnby Moor and their settings.
- Indirect impact on the nearby cluster of SINC's around Daneshill must be considered
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve and Reinforce' – actions should conserve distinctive features and features in good condition, and strengthen and reinforce those features that may be vulnerable.
- High potential for site to contain non-designated archaeology.

Access and transport

- Material as extracted will be taken off the site via the A638 for processing at Auckley

Amenity

- Consideration must be given to getting the correct balance of need to provide screening for residential properties against the resultant loss of existing views afforded to residents in close proximity to the site

Water and flooding

- Mitigation of potential flooding to be considered through a Flood Risk Assessment as site lies in Flood Zone 3 Main Drain. No plant or equipment or storage of aggregate or over burden should be in the Main Drain area and no excavation within 30m of the top of the bank forming the Main Drain
- Ensure 9 metre easement from watercourse that runs through the site from south to north is suitable to withstand ingress from water into the quarry.
- Potential indirect hydrological impacts to the Birklands and Bilhaugh SAC and Sherwood Forest p SPA.
- Potential impact on the groundwater resource as the site is within a Source Protection Zone 3 and underlain by a Principal Aquifer.

MP2n – Botany Bay

Grid reference: 467375, 383389

District: Bassetlaw District Council

Parish: Barnby Moor, Sutton and Babworth Parish Councils

Area: 113.2 hectares

Total mineral resource: 2.5 million tonnes

Quarry restoration

Restoration of the site should be primarily biodiversity-led, however the high quality agricultural soils should be taken into account in the final restoration proposal reflecting policy DM3; Agricultural land and soil quality. Target restoration will depend on landform, hydrology and substrate characteristics. However, priority habitats could include:

- Lowland Dry Acid Grassland
- Lowland Heathland
- Wet Grassland (Floodplain Grazing Marsh)
- Lowland Fens
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland
- Oak-birch Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland to complement the nearby Idle Valley Nature reserve.

Location

- South east of Barnby Moor and north west of Retford
- See Policies Map Inset 6

Environmental and cultural designations

- Protection of nearby Chesterfield Canal, Ranby Hall and Babworth Park and indirect impact on the nearby cluster of SINCs and SSSIs around Sutton and Lound and Daneshill must be considered
- Create stand off to protect vegetation along the canal
- Consideration of Landscape Character Assessment, Policy Zone recommendation: majority of the site is 'Conserve and Reinforce' – actions should conserve distinctive features and features in good condition, and strengthen and reinforce those features that may be vulnerable, with the remainder (one field to the north west) 'Conserve and Create' – actions should conserve distinctive features and features in good condition, whilst creating new features or areas where they have been lost or are in poor condition

Access and transport

- Access on to public highway to north of the site on to the A638

Amenity

- Restoration provides opportunity to link the Chesterfield Canal (Cuckoo Way Long Distance footpath) to Barnby Moor and Sutton cum Lound
- Provide adequate screening to all sides of the processing plant and along the length of the Chesterfield Canal.
- Create stand off to protect vegetation along A638 and Sutton Lane which are important screening features

Water and flooding

- Low groundwater levels may affect ability to provide wetland features
- Ensure that 9m stand off from watercourse that crosses the site would be adequate to withstand any ingress of water into the quarry.
- Potential indirect hydrological impacts to the Birklands and Bilhaugh SAC and Sherwood Forest p SPA.
- Potential impact on the groundwater resource as the site is within a Source Protection Zone 3 and underlain by a Principal Aquifer.

Other

- Take account of the high pressure gas line running across the site in the design and restoration of the site.

MP2o - Coddington

Grid reference: 484298, 355605

District: Newark and Sherwood District Council

Parish: Langford and Coddington Parish Council

Area: 127.1 hectares

Total mineral resource: 9.5 million tonnes

Quarry restoration

Restoration of the site should be primarily biodiversity-led, however the higher quality agricultural soils should be taken into account in the final restoration proposal reflecting policy DM3; Agricultural land and soil quality. There is potential to provide new areas of heathland and acid grassland in its eastern appendage (depending on substrate), as per the Trent Valley Biodiversity Opportunity Mapping Project. Target restoration will depend on landform, hydrology and substrate characteristics.

However, priority habitats could include:

- Lowland Dry Acid Grassland
- Lowland Heathland
- Lowland Neutral Grassland
- Wet Grassland (Floodplain Grazing Marsh)
- Marsh and Swamp
- Reedbed
- Ponds
- Wet Woodland
- Oak-birch Woodland

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland.

Location

- North east of Coddington village
- See Policies Map Inset 15

Environmental and cultural designations

- Extraction without dewatering would minimise impact on the Ancient Woodland that adjoins the site
- High archaeological potential to be managed, possibly through use of strip, map and sample method
- Protection of Moors Brat Drain SINC and woodland to eastern boundary must be considered.
- Potential impact on the setting of the Coddington conservation area.
- Trees located along the boundary of the site which are subject to Tree Preservation Orders should be retained and included within proposed screening.

Access and transport

- Access on to the public highway off the A17
- No HGV access from the site directly on to the secondary roads of Stapleford Lane, Drove Lane and Beckingham Road.

Amenity

- Screening of processing plant and the site particularly to the southern and eastern boundary to minimise visual intrusion.

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as part of site lies in Flood Zone 3. No plant or equipment or storage of aggregate or over burden should be in this area and no excavation within 30m of the top of the bank forming the watercourse
- 9m stand off from the major watercourse that crosses the site from east to west.
- Potential impact on the groundwater resource as the site is underlain by a Secondary Aquifer.

Other

- The site is crossed by a National Grid high voltage overhead electricity transmission line (4VK route)

MP2p – Flash Farm

Grid reference: 475815, 355472

District: Newark and Sherwood District Council

Parish: Averham Parish Council

Area: 47.6 hectares

Total mineral resource: 3.08 million tonnes

Quarry restoration

Restoration should be biodiversity-led, and precise details will be dependent upon landform, hydrology and substrate characteristics. However, restoration should target the creation of:

- Wet Grassland (Floodplain Grazing Marsh)
- Lowland Neutral Grassland
- Marsh and Swamp
- Ponds

Other habitats that may be appropriate for creation include:

- Reedbed
- Lowland Fen
- Wet Woodland
- Mixed Ash-dominated Woodland (Lowland Mixed Deciduous Woodland)

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wet grassland creation, which, in combination with the creation of other grassland and wetland types, will allow the creation of important areas of habitat, whilst also conserving Best and Most Versatile soils.

Location

- West of Kelham and north west of Averham
- See Policies Map Inset 25

Environmental and cultural designations

- Indirect impacts on Kelham Woods SINC must be considered
- High archaeological potential to be managed
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve and Create' – actions should conserve distinctive features and features in good condition, whilst creating new features or areas where they have been lost or are in poor condition

Access and transport

- Access on to public highway to the south east of the site on to the A617

Amenity

- Protection or suitable management of Averham footpath 6

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as part of the site lies in Flood Zone 3.

MP2q – Barton-in-Fabis

Grid reference: 453142, 333775

District: Rushcliffe Parish Council

Parish: Barton-in-Fabis Parish Council

Area: 79.6 hectares

Total mineral resource: 3 million tonnes

Quarry restoration

Restoration should be biodiversity-led, and precise details will be dependent upon landform hydrology and substrate characteristics. However, restoration should target the creation of:

- Wet Grassland (Floodplain Grazing Marsh)
- Reedbed
- Marsh and Swamp
- Pond

Other habitats that may be appropriate for creation include:

- Lowland Neutral Grassland
- Wet Woodland
- Mixed Ash-dominated Woodland (Lowland Mixed Deciduous Woodland)

Restoration should seek to maximise the extent of target habitat(s) and avoid habitat packing, where small areas of lots of habitats are packed into the site. Priority should be given to wetland/open habitats rather than woodland (although there may be limited opportunities for the latter along the bluff on the eastern side of the site), and should complement existing wetland habitat in the vicinity, including Attenborough Nature Reserve. Opportunities for created habitats to have multi-functional benefits (flood storage) should be explored, and taken where possible. Consideration should also be given to the opportunities to naturalise the channel and reconnect the river with its natural floodplain.

Location

- North east of Barton in Fabis village and west/south west of Clifton
- See Policies Map Inset 24

Environmental and cultural designations

- Direct and indirect impact on SINC's within and near the site and indirect impacts on Holme Pit SSSI must be considered
- High archaeological potential to be managed, including use of metal detector on conveyor belt
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Enhance' - emphasis should be to improve existing features which may not be currently well- managed or where existing features are of good quality but could be of greater benefit if improved.

Access and transport

- Access on to the public highway to east of the site on to the old A453

Amenity

- Protection or suitable management of Barton in Fabis footpath 2

Water and flooding

- Mitigation of potential flooding should be considered through a Flood Risk Assessment as site lies in Flood Zone 3. No excavation within 45m of the toe of any flood defence or the River Trent itself