Nottinghamshire County Council

Minerals Local Plan Consultation

Preferred Approach 23 October - 4 December 2013

Have your say on the future of minerals provision in Nottinghamshire

Foreword

Minerals extraction is going to raise some very big planning issues in Nottinghamshire over the next 15-20 years. We therefore need to have an up to date Minerals Local Plan that will set out how much mineral we are likely to need, where it should be worked and what sort of environmental standards should be in place.

Our current Minerals Local Plan was prepared under the old planning system and we are now working on preparing a new plan to replace it. This will look ahead to 2030.

This Preferred Approach document marks a very important public consultation stage in preparing the new plan. It sets out the Vision, Strategic Objectives, Strategic Policies, Mineral Provision Policies (including land allocations) and Development Management Policies that will guide the future development of minerals in Nottinghamshire County.

We want to know what you think as we have to try and strike the best balance between the wide range of local, environmental and commercial interests involved.

I hope you will respond and your comments will be considered as part of the next stage of the Plan's production.

Councillor Jim Creamer

Chairman: Environment and Sustainability Committee

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CHAPTER 1: INTRODUCTION

We each use the equivalent of around 10 tonnes of minerals every year to sustain our way of life. Sand and gravel, rock and brick clay are essential raw materials used in the building and construction industry; coal, oil and gas supply most of our energy needs and a wide range of other minerals are vital for our manufacturing, food, chemical and pharmaceutical industries and agriculture. Indeed almost all aspects of our material well-being depend to one degree or another on minerals.

Nottinghamshire is rich in minerals – in fact most of the County overlies at least one potential surface or underground resource. Sand and gravel, coal and gypsum are our largest extractive industries, all of which are nationally important. Other minerals worked include brick clay, building stone, silica sand and oil. There are also mineral resources such as industrial dolomite and shale gas that could be worked in the future.

Whilst many of our mineral resources remain plentiful, permitted reserves are often limited and finding sufficient new reserves to meet future demand will be a major challenge over the next 15-20 years. Unlike other forms of development, minerals are finite and can only be worked where they are found. This factor combined with the potential environmental impacts of extraction often seriously limits where mineral extraction is feasible. It is therefore important both to identify, at least in broad terms, where future mineral extraction will be acceptable and to safeguard resources so that suitable sites are not unnecessarily lost to other development.

The County Council is preparing a new Minerals Local Plan to resolve these issues and to provide the planning policy blueprint against which all proposals for new minerals development will be assessed. The current Minerals Local Plan was adopted in December 2005 and is now due for replacement. This Preferred Approach consultation exercise forms an informal stage in preparing a new Plan which will cover the period up to 2030.

The Preferred Approach fulfils the requirements of the Planning and Compulsory Purchase Act and the accompanying Town and Country Planning (Local Planning) (England) Regulations 2012 in preparing a Development Plan Document for the County Council and follows the guidance set out in the National Planning Policy Framework (March 2012)

Did you know?

Over the Plan period to 2030 around 110 million tonnes of minerals will be extracted in Nottinghamshire.

Have your say

The purpose of this Preferred Approach consultation exercise is to set out the draft Vision, Strategic Objectives, Strategic Policies, Minerals Provision Policies (including land allocations) and Development Management Polices that will guide the future development of minerals in the County.

We need to hear from all sections of Nottinghamshire's communities about what they think about the choices. There is likely to be a wide range of views about the shape of future mineral extraction in the County and we want to find solutions that have the best consensus of opinion but that can also be delivered. It is therefore vital you let us know what you think so we can take your views into account before any decisions are made about what should go into the new Plan.

This document will be available for comments between Wednesday 23rd October and Wednesday 4th December 2013. We would encourage you to respond online to this consultation at www.nottinghamshire.gov.uk/ minerals or you can email/write to us, using the response form, at the addresses shown below. Please note all comments that you make will be public.

Online www.nottinghamshire.gov.uk/minerals

Email development.planning@nottscc.gov.uk

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

Phone 08449 80 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 this consultation exercise we will consider all comments received and we will then incorporate relevant comments into a Submission Draft Consultation document ready for another public consultation period prior to submission to the Planning Inspectorate for examination and formal adoption.

Want more information?

A range of background papers have been prepared which set out in detail the particular issues faced for each mineral along with some other key topic areas.

Background papers – specific minerals

- Aggregates -estimating future requirements to 2030
- Aggregates - sand and gravel. Options for meeting shortfalls
- Aggregates -Sherwood Sandstone. Options for meeting shortfalls
- Aggregates - limestone (crushed rock). Options for future provision
- Alternative aggregates
- Brick clay
- Gypsum
- Building stone
- Industrial dolomite
- Silica sand
- Coal
- Hydrocarbons – oil and gas

Background papers - other issues

- Minerals safeguarding
- Biodiversity
- Landscape character
- Archaeology
- Development management policies
- Site assessment methodology

All of these documents are available on the County Council website or by contacting the Planning Policy team.

Image courtesy of
Hanson Heidelberg Cement Group

Image courtesy of
John Smith/ Notts. Wildlife Trust

Scope of the new Minerals Local Plan

Once adopted, the new Nottinghamshire Minerals Local Plan will form the land use planning strategy for mineral development within the County as a whole. It will provide the basis for the determination of mineral planning applications within the County. Its over-arching theme is the promotion of sustainable development and achieving the highest quality restoration possible. This means balancing the economic benefits and need for minerals against the social and environmental disruption and harm that their extraction can cause. Long term environmental gains can be achieved, for example, by creating wildlife habitats out of worked out quarries. Sustainability also means safeguarding mineral resources from unnecessary sterilisation so they can remain available for extraction for future generations.

The new plan will contain the following:

- An overview of the County in terms of population, transport, communications, the economy and resources, Green Belt, landscape, countryside, natural and built heritage, water, soil, air, health and climate, which will help us plan effectively for the future;
- A long term Vision for mineral development in Nottinghamshire to 2030;
- Strategic Objectives demonstrating how the Vision will be achieved;
- Strategic Policies covering the key issues of Sustainable Development, Minerals Provision, Biodiversity Led Restoration, Climate Change, Transport, The Built and Natural Environment and the Green Belt;
- Mineral Provision Policies setting out the mineral requirements during the plan period to 2030, including land allocations to meet this demand;
- Development Management Policies, the purpose of which is to deliver the strategic policies and objectives by providing the criteria against which future minerals development will be assessed. They relate specifically to individual, site level criteria such as environmental impacts and standards and provide guidance about how planning applications for minerals development in the county will be assessed;
- A framework by which the implementation of and subsequent effect of the plan and its policies can be monitored and reviewed; and
- A Policies Map which identifies site allocations/policies and site specific Development Briefs.

Supporting documents

A series of other documents are of importance to the new Mineral Local Plan, all of which can be found on our website.

Local Aggregates Assessment (LAA)

The LAA summarises past aggregate production, the number of active quarries and the distribution of the extracted mineral. It identifies the future mineral apportionment levels based on the NPPF 10 year average figure and identifies key issues that could affect the future demand for aggregates over the next plan period.

Annual Monitoring Report (AMR)
The AMR monitors how the County Council is progressing with the existing Local Plan and how well its policies are being implemented. Once the new Minerals Local Plan is adopted the AMR will be altered to reflect the new policies it contains.

Statement of Community Involvement (SCI)
This sets out how Nottinghamshire County Council will consult and engage with local people, statutory bodies and other groups during the preparation of the Local Plan and on mineral planning applications.

Sustainability Appraisal (SA)
All local development frameworks, including those for minerals, are required to undergo a Sustainability Appraisal. The purpose of the SA is to promote sustainable development through better integration of sustainability considerations in the preparation and adoption of plans. SA helps local planning authorities to ensure that sustainable development is considered in the preparation of their plans. The National Planning Policy Framework (2012) (NPPF) introduced a 'presumption in favour of sustainable development' as a 'golden thread' which should run through plan and decision-making.

SA is an integral part of the preparation of the new Minerals Local Plan. The first stage was a review of the Issues and Options consultation document. This was completed after the consultation and the findings have been used to inform the development of the Preferred Approach. The second stage of SA, a review of the Preferred Approach, has been completed alongside the development of the document, thus contributing directly to its development.

Habitats Regulation Assessment (HRA)
Habitats Regulations Assessment (HRA) is required under the European Directive 92/43/EEC on the "conservation of natural habitats and wild fauna and flora for plans" that may have an impact of European (Natura 2000) Sites. HRA is the assessment of the impacts of implementing a plan or policy on a Natura 2000 Site. Its purpose is to consider the impacts of a land-use plan against conservation objectives of the site and to ascertain whether it would adversely affect the integrity of the site. Where significant negative effects are identified, alternative options should be examined to avoid any potential damaging effects.

A Preliminary screening report for the Waste Core Strategy and Minerals Local Plan was produced for the County Council in 2011 and subsequent screening of potential sites was completed in 2013. These reports have informed the preparation of this Preferred Approach document.

Strategic Transport Assessment (TA)
Early consultation with the Highways Authority has indicated that each proposed site would not have significant impacts on the highway network if a relevant package of mitigation measures were implemented, however, a detailed strategic transport assessment is being undertaken to ensure that there are no unacceptable overall impacts on the highway network.

Did you know?

On average we extract nearly 6 million tonnes of mineral in Nottinghamshire every year. Some of this will be transported out of the country to meet national and regional demands.

Strategic Flood Risk Assessment (SFRA)
In 2010 Scott Wilson were commissioned to undertake a Level 1 Minerals and Waste Strategic Flood Risk Assessment for Nottinghamshire County Council and Nottingham City Council Unitary Authority. The purpose of this report was to assess and map the different levels and types of flood risk to inform the development of the Minerals Local Plan (and Waste Core Strategy).

Equality Impact Assessment (EQIA)
An initial assessment of equality impact of the Minerals Local Plan has been undertaken. This does not identify any issues in this regard, however a more detailed assessment is underway to fully assess each policy.

Health Impact Assessment (HIA)
A Health Impact Assessment is being carried out to ensure that the Minerals Local Plan does not have significant adverse impacts in the short or long term.

Nottinghamshire Sustainable Community Strategy (SCS)
The purpose of a Sustainable Community Strategy is to set the overall strategic direction and long-term vision for the economic, social and environmental wellbeing of a local area, typically ten to twenty years, in a way that contributes to sustainable development in the UK.

Nottinghamshire County Council's Sustainable Community Strategy (2010 -2020) outlines six priorities for Nottinghamshire which have been incorporated into this document:

- a greener Nottinghamshire
- a safer Nottinghamshire
- a place where Nottinghamshire's children achieve their full potential
- health and well-being for all
- a more prosperous Nottinghamshire
- making Nottinghamshire's communities stronger.

How is the new Minerals Local Plan being prepared?

The preparation of the new Minerals Local Plan will go though a number of key consultation and other stages as illustrated below. Under our current timetable we hope to be able to adopt the new Minerals Local Plan by 2014.

Key stages in preparing the new Minerals Local Plan

Issues and Options
An informal consultation on the key issues facing Nottinghamshire in relation to minerals and what reasonable choices we have. This stage was carried out during January-March 2012.

Preferred approach
This is the current stage of consultation. We have looked at all the options and those that we think provide the most suitable solution are included in this document. This is your chance to give us your views and tell us if you think we have got it right.

Submission
Following a six week period for formal representation on our proposals, we will submit our draft Minerals Local Plan to the Government.

Examination
This is an independent examination by a Government Inspector who will look at whether the Minerals Local Plan is sound and take account of any representations made at the submission stage. This usually involves a public hearing.

Adoption
This is the final stage if the Minerals Local Plan is found sound. The Inspector may make minor changes to the strategy but if serious problems are found he/she will declare it 'unsound' and it will have to be withdrawn.

How to read this document

The remaining chapters share a number of common features:

What you told us at the Issues and Options stage…

- This sets out a summary of the responses we received from members of the public, the minerals industry, stakeholders and interest groups during the first stage of consultation on the Minerals Local Plan, completed in January to March 2012.
- These comments have been taken on board and where appropriate and possible, have been incorporated into the preferred approach.

Issues and Options Sustainability Appraisal Findings:

- As set out above, a Sustainability Appraisal (SA) of the options set out in the Issues and Options consultation document has been completed. These boxes set out a summary of the main findings of the SA in relation to the topic in each section. In some cases there are no findings presented. This is because no options were presented at the previous stage.
- The full findings of the SA in relation to all of the options can be found on our website. Also available on our website is the SA of the preferred approach document itself (split into a main report and a separate one looking at all of the individual sites we considered for allocation).
- The findings of the SA process have been used to inform the production of this preferred approach report.

Introduction
This is a short introduction to the topic, which gives the context for each of the topic/policy areas.

POLICIES

Proposed policies are set out in these boxes.

Where policies include land allocations, codes are used. For existing permitted sites, codes are based on the mineral type (e.g. SG = Sand and gravel). For new sites and extensions, codes are related to the policy number.

Justification
This sets out in detail an explanation of the policy, including the reasons why it is needed, justification for the approach we are proposing and what the policy seeks to achieve.

CHAPTER 2: OVERVIEW, VISION AND STRATEGIC OBJECTIVES

What you told us at the Issues and Options stage…

- Priority should be given to those sites with better transport links, in particular rail;
- Reclamation schemes which maximise biodiversity gains should be supported;
- Resources of specialist aggregates should be better protected;
- Reference should be made to the scope to improve public access to the rights of way network;
- Reference to archaeological remains should be expanded to include heritage assets;
- There should be a requirement for sites in Green Belt to be restored to the highest possible standards;
- Overview in Issues and Options document may be construed as assuming that there will be no future surface coal mining;
- The importance of Sherwood Sandstone should be recognised;
- It should be noted that Sand and Gravel extraction has changed the landscape in the Trent Valley and there should be more emphasis on the impacts of Sand and Gravel extraction;
- The impact of mineral workings on local communities should be recognised;
- The loss of agricultural land should be noted;
- The Portrait should acknowledge Nottinghamshire's significant environmental assets;
- There should be a reference to the need for mineral working to be carried out in a sustainable manner;
- It is not considered that the protection of the environment is addressed significantly;
- It is inappropriate to suggest that minerals should be safeguarded if they are not listed;
- The use of secondary and recycled aggregates should be promoted;
- It should be acknowledged that restoration plans can include agriculture;
- The use of sustainable transport should be addressed.

Sustainability Appraisal Findings:

- The appraisal of the Plan's vision found that it failed to impart a sustainable overall approach to minerals development as it did not adequately address the issues covered by a number of the Sustainability Appraisal (SA) objectives, including those on protecting the historic environment, landscape, high quality agricultural land, air quality and water quality and promoting sustainable patterns of movement.

Overview of the plan area

Planning effectively for the future means having a good understanding of our current situation and what is likely to change. It is important to take account of environmental assets including our countryside, wildlife and heritage, as well as the quality of life and well-being of our communities.

Nottinghamshire is well known for its historic past, linked to tales of Robin Hood and its industrial heritage based on textiles and coal, but it also has an ambitious future with a growing population of over one million people and a diverse and expanding economy.

Although part of the East Midlands, Nottinghamshire also shares a boundary with South Yorkshire. Northern parts of Nottinghamshire therefore have significant employment, housing and business links with Sheffield, and the metropolitan areas of Barnsley, Rotherham and Doncaster. The more urbanised west of the county is also closely linked to neighbouring Derbyshire. More rural eastern parts have a similar character to neighbouring parts of Lincolnshire and some villages there are nearer to Lincolnshire. In the south, Nottingham is a major regional centre with close physical links to the neighbouring cities of Derby and Leicester. Consequently there is a significant overlap of housing areas, business and employment between these three cities (see Plan 1 below).

Population

Nottinghamshire has a population of around 1,000,000 residents. Nottingham, in the south of the county, is one of the UK's eight Core Cities and a major centre for employment, retail and tourism. Around two thirds of the county's population live in, or close to, Nottingham. Most of the remainder live in, or close to, the other main towns of Mansfield, Kirkby-in-Ashfield, Sutton-in-Ashfield, Hucknall, Worksop, Newark and Retford.

Transport and Communications

Road and rail links to the rest of the UK are generally good, especially via the main north-south routes of the M1, A1, A46 and direct rail links to London from Retford, Newark and Nottingham. East-west links have been enhanced with the completion of the A617 near Mansfield and with the widening of the A453 into Nottingham from the M1 further improvements are likely.

Most freight, including minerals, is currently moved by road rather than rail although there is some use of the county's network of rivers and canals for transport. The River Trent, especially, is a major waterway flowing from Nottingham to Newark and then northwards to the Humber, forming part of the county's eastern boundary.

Although just outside the county, both East Midlands Airport at Castle Donington and Robin Hood Airport near Doncaster provide national and international passenger and freight services.

Employment, Economy and Resources

Connectivity makes the county an important centre for warehousing, distribution, and other service based industries, which are replacing the more traditional industries of coal-mining, textiles and manufacturing, especially around Mansfield, Worksop and Newark.

Here, the legacy of former coal mining and heavy industry has left a surplus of derelict land and opportunities for enterprise and redevelopment. Nottingham and its surrounds also provide a major centre for technology, financial, knowledge and science based industries. Away from our main urban areas, agriculture and forestry are no longer major employers but still make up much of the county's rural landscape, particularly to the south and east. Minerals and energy production are also important in parts of the county, especially sand and gravel extraction from the Trent and Idle Valleys and the four major power stations along the River Trent.

Nottinghamshire's economy generally compares well to the rest of the UK, and some of our urban areas are expected to be the focus of significant housing and commercial development in future. However, there are also wide inequalities in the rates of employment, income, education and skills across the county, most notably in former mining areas and in some parts of Nottingham, making regeneration a priority for these areas.

Green Belt

In Nottinghamshire the Green Belt covers land around Greater Nottingham, Nottingham City and rural village areas. It covers more than 43,000 ha and exists to stop towns from merging, to prevent urban sprawl and to safeguard the countryside (see Plan 1 below).

Landscape and Countryside

The County's landscape is characterised by rich rolling farmlands to the south, with a central belt of mixed woodland and commercial forestry, giving way to heathland in the north and open, flat agricultural landscapes to the east. Although agriculture is a relatively small industry today, large parts of the county are made up of good quality agricultural land with the highest quality (Grade 1) being concentrated in the northern part of the County. The six country parks around Nottinghamshire provide valuable areas of open space.

Nature

The quality of our natural environment has suffered in the past from the impacts of development and there has been a significant decline in biodiversity, with losses of ancient woodland, heathland, species-rich grassland, hedgerow and wetland habitats, as well as the species that these habitats support. Some of these historic declines are now being halted, and in some cases reversed, with neglected sites brought into positive management and new areas of habitat created as a result of the activities of partner organisations in the Nottinghamshire Biodiversity Action Group, by initiatives such as Environmental Stewardship and the English Woodland Grant Scheme, and as a result of restoration schemes. This action is being co-ordinated and quantified through the Nottinghamshire Local Biodiversity Action Plan.

Heritage

Nottinghamshire's heritage is very diverse. Creswell Crags on the Nottinghamshire-Derbyshire boundary has the most northerly Ice Age cave art in the world. The historic landscape of the Trent Valley is an important area for archaeological remains of prehistoric settlement. There is important evidence of Roman field patterns in the north of the county and the modern day A1 and A46 follow the line of old Roman routes. Evidence of Viking influence is apparent in the county's place names. Sherwood Forest boasts a unique heritage of folklore, monasticism and large country house estates (the Dukeries). The county has a fine collection of historic market towns including Worksop, Newark, Retford,

Mansfield and Southwell. They are all rich in architectural and archaeological heritage. The rivers Trent and Idle, which historically provided important cultural and trade links and the focus of many of our early settlements, are still relied on today by industry, agriculture and the County's power stations.

For hundreds of years coal mining and other quarrying was very significant in the west of the county. Nottingham's industrial past was dominated by the textile industry throughout the 18th,19th into the 20th centuries and has left a rich built heritage. The majority of Nottinghamshire's conservation areas, listed buildings, historic parks, and Scheduled Ancient Monuments are in good condition, but a proportion (around 10%) are in a vulnerable condition or situation.

Water, Soil and Air

Much of Nottinghamshire is underlain by important groundwater resources used for industry, agriculture and drinking water. The Rivers Trent and Idle also provide important surface water resources. Whilst water quality is good overall, there are problems with the level of nitrates in the soil in large parts of the county which can in turn affect water quality. The whole of north Nottinghamshire is therefore designated as a nitrate vulnerable zone.

Flood risk varies across the county and although there are several areas at risk of localised surface flooding, the main risk comes from the River Trent, especially around Nottingham and Newark and in some of the outlying villages.

Air quality is generally good across the county but several Air Quality Management Areas (AQMAs) have been designated around Nottinghamshire because of known traffic and congestion problems.

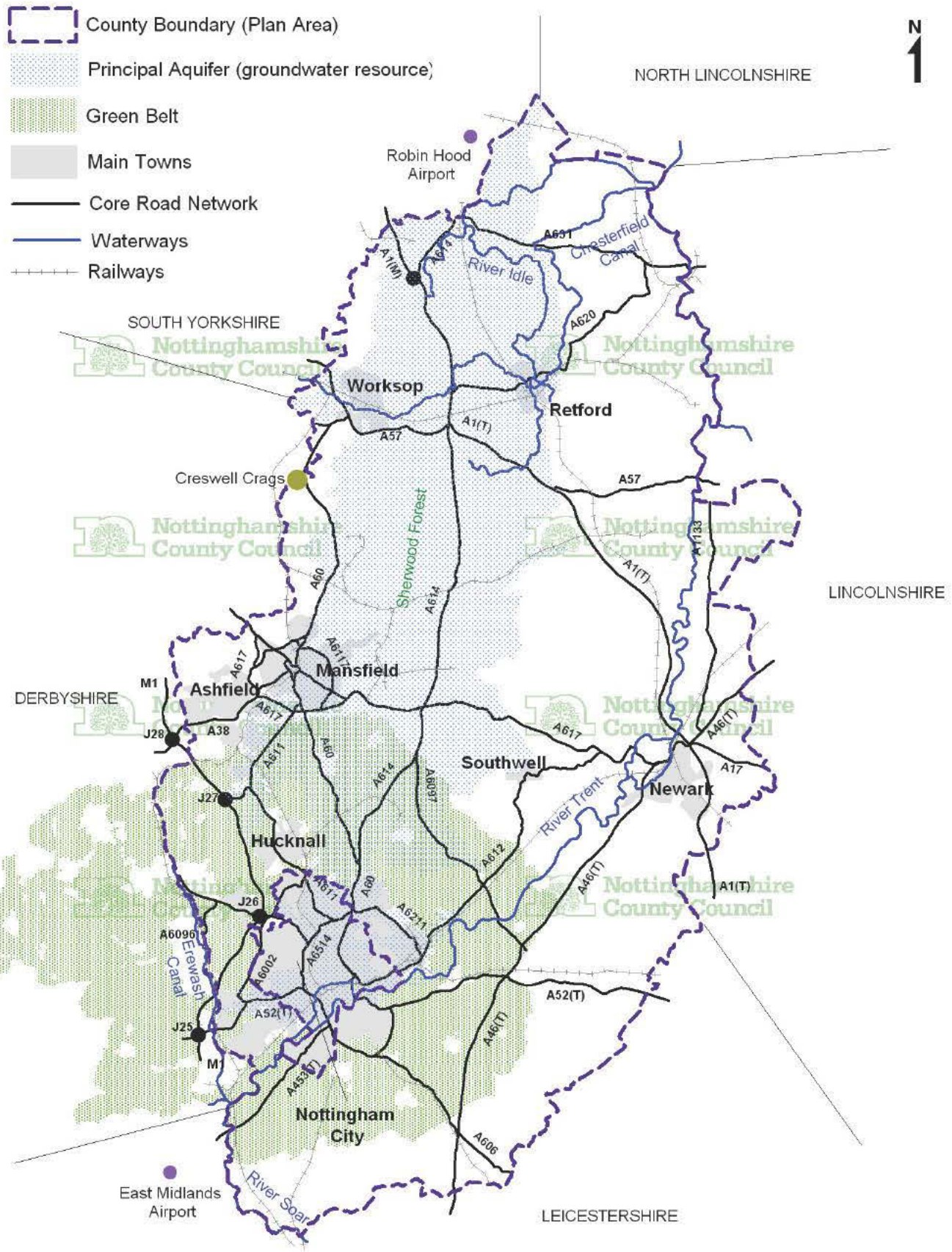
Health

Overall health indicators are slightly lower than both the regional and national average although life expectancy has recently grown closer to the national average. There are also wide variations in life expectancy with a twelve year gap in average life expectancy between the least and most deprived wards. In some areas low levels of income, and high levels of unemployment and stress, are seen as having a significant impact on health and wellbeing. The main urban areas of Mansfield and Ashfield are worst affected, whilst more rural, affluent areas within Rushcliffe and Gedling generally fare far better in line with national trends. Obesity, amongst both children and adults is also a concern.

Climate

Parts of Nottinghamshire have already experienced more frequent and heavier flooding previously and, overall, this pattern is expected to continue. In common with the rest of the UK there is also an increased likelihood of higher average temperatures, drier summers, wetter winters and more frequent and extreme storms.

Plan 1: Overview of the Plan Area



Nottinghamshire's mineral resource and industry

Nottinghamshire is rich in minerals and most widely known for its coal mining industry which has had a major impact on the social and economic development and environment of many parts of the county. Today, only one colliery remains active but the legacy of the coal industry is still very evident. The most visible reminders are the large spoil tips, many of which have been restored but some still present reclamation issues. Most former colliery sites have now been redeveloped to provide new employment opportunities for communities that were hit hard with the widespread closure of collieries.

Today, sand and gravel is the biggest extractive industry in the County. Most quarries work the river deposits found in the Trent and Idle valleys, although Sherwood Sandstone is also exploited. This activity has transformed large areas of the Trent and Idle Valleys into wetlands and in doing so has changed the landscape character of the area. Some former workings are now used for sports and recreation and others have become important wildlife habitats. As the County is quite poor in biodiversity sand and gravel reclamation schemes have had a very significant role in redressing the balance.

Gypsum is another major minerals industry in Nottinghamshire, and has been extensively mined in the south of the County and quarried between Newark and Kilvington. The associated plasterboard and plaster works that these mineral operations support are important local employers although few are actually directly employed in the extractive process itself.

Other minerals worked are brick clay, silica sand, building stone, aggregate limestone, and oil. Some of these minerals also support locally important associated industries such as brickworks.

Building stone was worked much more extensively in the past and has contributed towards the traditional character of many villages and historic buildings. Today extraction is limited to just one small quarry.

Nottinghamshire has potential mineral resources that have not been exploited but which could be in the future. This includes industrial dolomite found in a small area in the north west of the County and potential shale gas resources which are thought to exist in the north and the south of the County.

Wider issues
There is a significant movement of minerals both in and out of the County which provides Nottinghamshire County Council opportunities to work with other Mineral Planning Authorities to manage these movements and minimise the environmental impacts of the extraction.

Plan 2 illustrates the geological resource of Nottinghamshire.

Plan 2: Nottinghamshire's mineral resources

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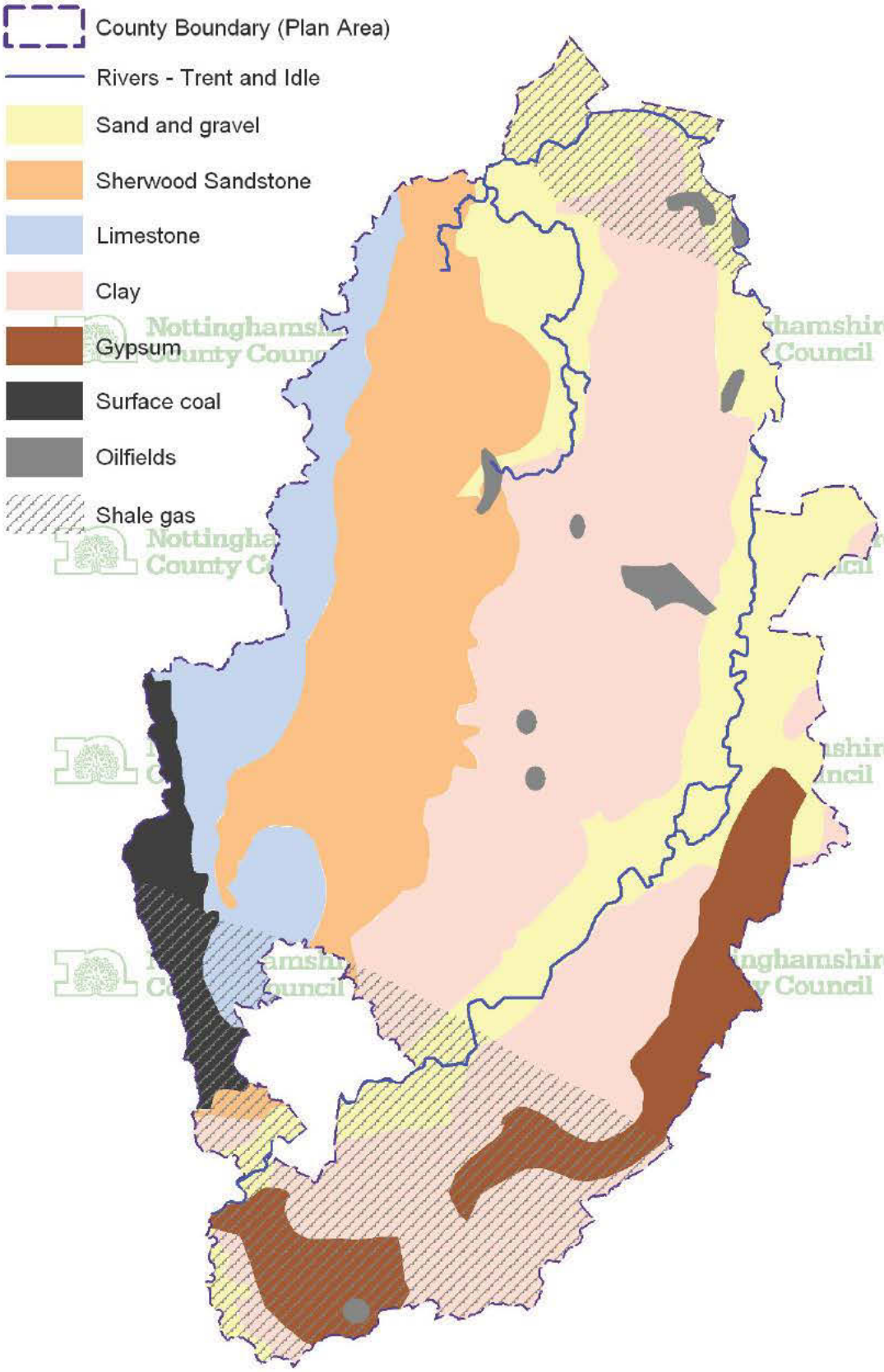


British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003

Vision

The Vision for managing minerals seeks to address the issues facing the Plan Area and take into account the views of local communities and other stakeholders as well as supporting the delivery of national planning policies. The broad aims are then developed in more detail in the Strategic Objectives, the policies, and the Implementation section.

The Vision has been updated since the Issues and Options consultation document to take account of updates to relevant national policy as well as consultation responses and Sustainability Appraisal work.

"By 2030 minerals will be efficiently used across Nottinghamshire by utilising sustainable construction practices. To minimise waste, they will be considered a valuable resource to be used and re-used efficiently.

Mineral development will be designed and operated to ensure that environmental harm and impacts on climate change are minimised.

Within geological constraints, mineral development will be concentrated in locations that offer the greatest level of accessibility to the major markets and growth areas and to sustainable transport nodes to encourage sustainable patterns and modes of movement.

Nottinghamshire will continue to provide minerals to meet its share of local and national needs. Sites will be available to support the economic, social and environmental benefits of sustainable growth. Proven mineral resources will be identified and safeguarded against inappropriate development, and their consumption minimised, by promoting the use of secondary and recycled minerals.

Quarries will be designed, operated and managed in ways which help to reduce flood risk, particularly in the Trent Valley flood plain, manage surface water sustainably and maintain or enhance water quality.

All mineral workings will contribute towards 'a greener Nottinghamshire' by ensuring that the County's diverse environmental assets are protected, maintained and enhanced through appropriate restoration and after-use and by ensuring that proposals have regard to Nottinghamshire's historic environment, townscape and landscape character, biodiversity, geodiversity, agricultural land quality and public rights of way. This will result in improvements to the environment and re-connection of degraded or fragmented habitats, with sensitivity to surrounding land uses.

The quality of life and health of those living, working in, or visiting Nottinghamshire will be protected."

Strategic Objectives

The following objectives have been identified as central to achieving the delivery of the spatial vision for Minerals in Nottinghamshire:

SO1: Improving the sustainability of minerals development

Ensure that there is more efficient use of primary mineral resources and the amounts of waste are reduced by increasing levels of aggregate recycling and the use of alternatives to primary materials from secondary and recycled sources. Secure a spatial pattern of mineral development that delivers resources to markets within and outside Nottinghamshire giving priority to the improved use or extension of existing sites before considering new locations. Barge transport of sand and gravel along the Trent Valley will be encouraged.

SO2: Providing an adequate supply of minerals

Assist in creating a prosperous, environmentally sustainable and economically vibrant County through an adequate supply of all minerals to assist in economic growth both locally and nationally. Provide sufficient land to enable Nottinghamshire's agreed apportionment for aggregates to be maintained in a managed supply over the plan period.

SO3: Addressing climate change

Minimise and mitigate the impact of mineral developments on climate change by encouraging efficient ways of working including reductions in transport and onsite machinery emissions. Reduce existing, and future flood risks linked to climate change, by good quarry operation, location of plant and through appropriate restoration, particularly for quarries in the Trent Valley flood plain. Surface water will be managed in a sustainable manner.

SO4: Safeguarding of mineral resources

Protect the County's proven mineral resources from development which would prevent their future use.

SO5: Minimising impacts on communities

Minimise the adverse impacts on Nottinghamshire's communities by protecting their quality of life and health from impacts such as traffic, visual impact, dust etc. Make sure that local people have the opportunity to be involved in decisions about new mineral developments by providing information, encouraging wider involvement and targeting key groups or individuals where appropriate.

SO6: Protecting and enhancing natural assets

Conserve and enhance Nottinghamshire's natural environment, including its distinctive landscapes, woodlands, geology, wildlife species and ecological health of water bodies by minimising and mitigating potential negative impacts. Maximise biodiversity gain by creating new habitats through mineral restoration schemes focusing on priorities set out in the Nottinghamshire Biodiversity Action Plan, in particular meeting reed bed and lowland wet grassland targets through sand and gravel reclamation schemes and achieving the Water Framework Directive. Give priority to minerals development that will provide long term enhancements to landscape character and which avoids damaging the highest quality landscapes.

Appropriate restoration will result in the creation of new ecologically valuable habitats.

SO7: Protecting and enhancing historic assets

Safeguard and where appropriate enhance Nottinghamshire's distinct historic environment including its wider setting. Ensure heritage assets (archaeological, historic buildings, settlements, landscapes, parks and gardens) and their settings are adequately protected or recorded. Support the identification of building stone and seek to enable its provision to help conserve the historic built environment and local distinctiveness.

SO8: Protecting agricultural land

Support minerals developments that will protect and enhance the best and most versatile agricultural land.

Key Diagram

The components of the spatial strategy are illustrated on the Key Diagram below (Plan 3). It shows the main supply sources for aggregates and the principal constraints.

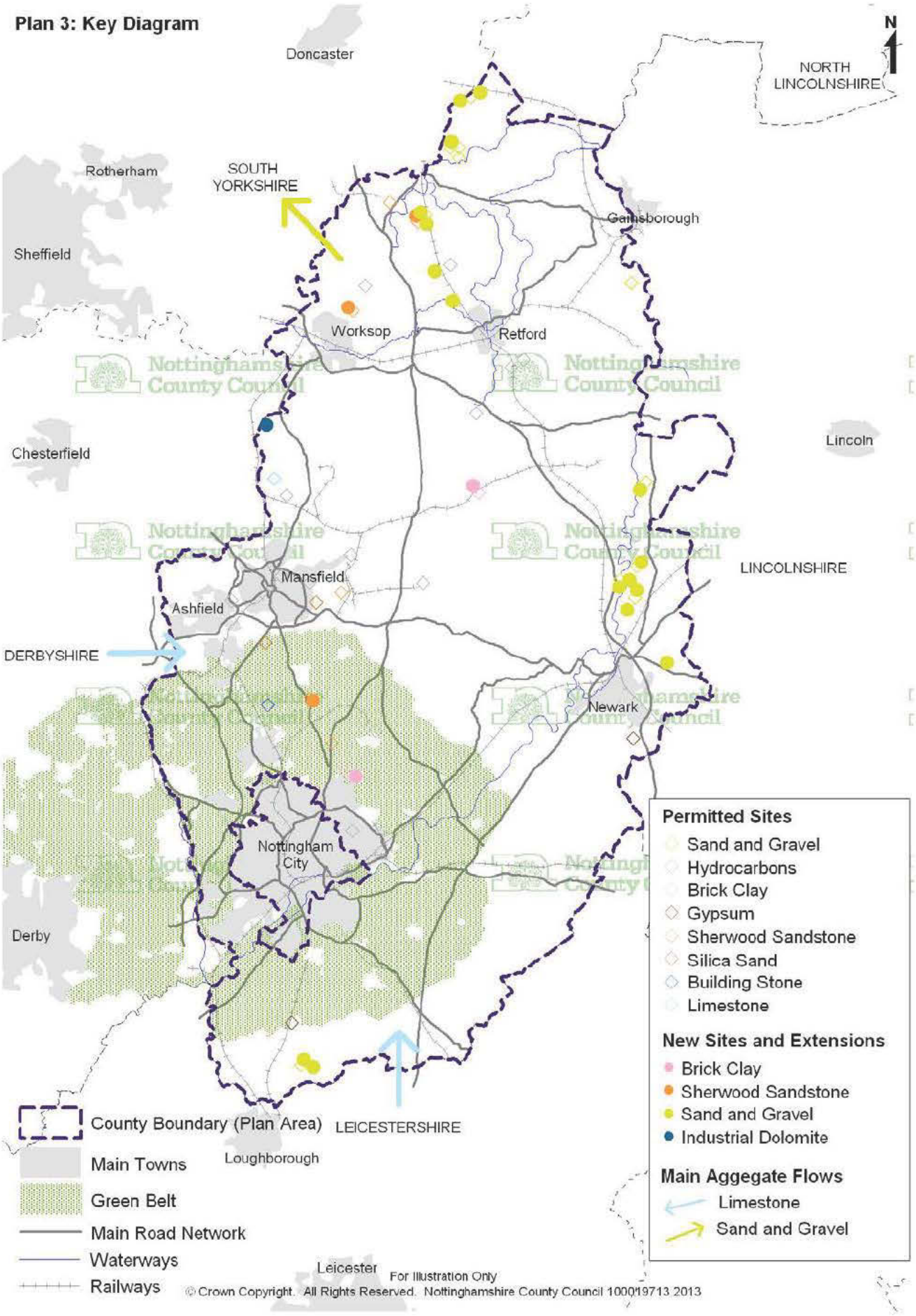
The Key Diagram is intended to be a diagrammatic interpretation of the Spatial Strategy set out in this document and is not intended to portray any specific site activity or proposal with spatial accuracy.

The remaining sections of the Plan develop the Spatial Strategy's principles and objectives. Specific details relating to the policies are shown on the Policies Map.

Did you know?

The average house uses up to 60 tonnes of aggregate mineral to build. It can be as high as 400 tonnes when associated infrastructure is included.

Plan 3: Key Diagram



CHAPTER 3: STRATEGIC POLICIES

SP1: Sustainable development

What you told us at the Issues and Options stage…

- The Minerals Local Plan needs to uphold strong environmental principles that protect and enhance the environment, ensure that the minerals industry contributes effectively to the local economy and engage with and support communities affected by minerals development;
- It is important that economic considerations do not take undue precedence in the development of the Local Plan;
- In the past it was considered that the views of the minerals industry and economic factors have been given too much credence over important environmental and community factors. The new Local Plan should strike a fairer balance between these often diametrically opposed factors;
- Policy contained within the NPPF should be used to set out the principles of provision in the next draft of this document;
- Potential new sites should be assessed using a criteria based approach to ensure that economic, environmental and social considerations are taken into account in line with the sustainability approach set out in the NPPF;
- The final version of the Plan will need to make clear what is unacceptable, as well as promoting high quality, necessary development in appropriate locations.

Introduction

National Planning Policy Framework (NPPF) paragraph 14 states, that *"at the heart of the NPPF is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking".*

Paragraph 15 further continues that *"all plans should be based upon and reflect the presumption in favour of sustainable development, with clear policies that will guide how the presumption should be applied locally".*

POLICY SP1 – SUSTAINABLE DEVELOPMENT

1. When considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. The Council will work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

2. Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in other plans which form part of the development plan) will be approved unless material considerations indicate otherwise.

3. Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision the Council will grant planning permission unless material considerations indicate otherwise – taking into account whether:

   a) Any adverse impacts of granting planning permission would significantly and demonstrably outweigh the benefits, when assessed against policies in the National Planning Policy Framework taken as whole; or
   b) Specific policies in that Framework indicate that development should be restricted.

Justification

The Government published its National Planning Policy Framework (NPPF) in March 2012 setting out its planning policies for England and how these are expected to be applied. The NPPF confirms that the purpose of the planning system is to contribute to the achievement of sustainable development along the three dimensions of economic, social, and environmental sustainability. The Framework makes it clear that these roles are mutually dependent and that Local Plans are the key to delivering sustainable development. Local Planning Authorities, when plan-making, are advised to positively seek opportunities to meet objectively assessed development needs, with sufficient flexibility to adapt to rapid change.

The NPPF indicates that proposed development in accordance with an up-to-date Local Plan should be approved without delay, and proposed development that conflicts should be refused unless other material considerations indicate otherwise. Policy SP1 above is consistent with the NPPF requirements on decision-taking.

It is a national planning objective that planning, including planning for mineral development supports the transition to a low-carbon economy, taking into account flood risk, water supply and changes to biodiversity and the landscape. All new mineral development proposals will be expected to be planned from the outset to avoid increased vulnerability to the range of impacts resulting from climate change, care will need to be taken to ensure any potential risks can be managed through suitable adaptation measures.

Image courtesy of
Lafarge Aggregates and Concrete UK

SP2: Biodiversity Led Restoration

What you told us at the Issues and Options Stage…

- Several options were put forward and included either having a broad strategic policy promoting biodiversity through site restoration (Option A), having a policy promoting area wide strategies (Option B) or having a policy based solely on LBAP targets (Option C). Generally, the greatest support was for Option B (having a policy promoting area wide strategies), with Options A (promoting biodiversity through site restoration) and C (policy based on LBAP targets) being supported equally;
- There was also support for a combination of different options and also a hybrid approach using all three Options;
- Biodiversity would be significantly increased through restoration of sand and gravel sites;
- Option B would give greater clarity and provide a stronger steer for minerals restoration schemes, both large and small and in the long term;
- Other documents such as the Green Infrastructure Strategy also need to be taken into account.

Note: At the time of writing the issues and options document, the intention was to produce a 'Core Strategy' rather than a Local Plan (in line with National Planning Policy at the time). The Core Strategy would have identified broad areas of extraction and wouldn't include specific sites. However, due to the changes in national guidance, the Minerals Local Plan will now contain specific sites. It was therefore decided that site specific restoration could be implemented taking account of the wider Biodiversity Opportunity Mapping work that has been completed across the Trent Valley (Option A).

Issues and Options Sustainability Appraisal Findings:

- The Sustainability Appraisal (SA) concluded that the options were very specific, narrowly defined and that there was no clear link between any of the options and several of the SA objectives;
- Although none of the options had any wholly negative impacts, there was potential for all 3 options to have either positive or negative impacts on SA objective 5 (protect townscape/landscape);
- Differences between the options arose in relation to SA objectives 2, 7, 13 and 14. For objective 2 (protect and enhance biodiversity) Option B had a very positive impact whereas Options A and C had a positive impact. For objective 7 (minimise impacts on and increase adaptability to climate change) Options A and B had positive impacts whilst C had no significant effect. For both objectives 13 and 14 Options A and B had positive impacts whilst the impact of C was uncertain;
- Options A and B therefore scored more favourably than C, with Option B being marginally more favourable than A in that it had a very positive, rather than just a positive, impact on SA objective 2.

Introduction

Nottinghamshire County Council promotes a restoration led approach when considering proposed mineral workings. It is seen as vital that the restoration and future use of the land is addressed at the outset. Not just at the pre application discussion stage of preparing planning applications.

The County Council aims to ensure mineral sites are reclaimed in a way that seeks to maintain and significantly enhance the county's diverse environment and biodiversity, in line with Local Plan Strategic Objective 6.

Restoration has to be seen as an integral part of the management of the whole extraction process and phasing. This includes biodiversity, landscape, and recreational opportunities. This does not mean placing an added onus or burden upon the minerals industry, rather it ensures that the right restoration solutions are formulated and opportunities are realised.

POLICY SP2 – BIODIVERSITY-LED RESTORATION

1. Restoration schemes contributing to the delivery of habitat creation targets within the Nottinghamshire Local Biodiversity Action Plan and contribute to the delivery of the Trent Valley Biodiversity Opportunity Mapping Project shall be supported where appropriate, unless the need for non-biodiversity restoration can be clearly demonstrated.

2. Where appropriate, schemes will be expected to demonstrate how restoration will contribute to the delivery of the Water Framework Directive targets.

3. Restoration schemes for allocated sites should be in line with the relevant Site Restoration Brief.

Justification

Once minerals extraction sites have fulfilled their primary purpose of providing mineral, the restoration of such sites can have a major environmental benefit; there is considerable potential in linking existing areas of habitat as well as creating new areas of habitat for wildlife, and in doing so, to help meet national and local habitat creation targets.

A more systematic approach to the assessment of impacts on the natural environment to ensure that the true value of ecosystems and the services provided by the natural environment that benefit people need to be considered.

The Government's Natural Environment White Paper (2011) places the value of nature at the centre of the choices that are made ensuring that the environment is enhanced and economic growth and personal wellbeing is taken into account.

Whilst a certain level of new habitat has been delivered in Nottinghamshire as a result of the restoration of permitted minerals extraction sites, opportunities have in the past been lost. With a suitable policy framework, and careful planning at an early stage, the level of

high-quality habitat delivered by mineral extraction can be increased, creating valuable places for both wildlife and people.

It is widely recognised that the restoration of minerals extraction sites has a major role to play in meeting targets for the creation of new habitat, both nationally and locally. A study carried out by the RSPB indicates that nationally, minerals restoration schemes can meet, and some cases exceed, habitat creation targets for a number of UK Biodiversity Action Plan (UKBAP) priority habitats.

Mineral working is a temporary land use and worked sites which are not appropriately restored can result in permanent adverse impacts on the environment, dereliction and lost opportunities.

The overall restoration process includes the separate processes of site restoration and after-care. They cover any operations associated with the working of minerals. They include preparations before mineral extraction and operations after extraction up until a final use has been established on site.

Restoration of mineral voids offers a significant opportunity for the establishment or re-establishment of priority habitats, particularly through providing re-created linkages between fragmented blocks of specific habitat types.

The Humber River Basin Management Plan has been prepared by the Environment Agency under the Water Framework Directive which requires all countries throughout the European Union to manage the water environment to consistent standards. The Humber River Basin District is one of the most diverse regions in England, ranging from the upland areas of the Peak District, South Pennines and the North York Moors, across the Derbyshire and Yorkshire Dales and the fertile river valleys of the Trent and Ouse, to the free-draining chalk of the Wolds. Water supports these landscapes and their wildlife and as such pressures that the water environment faces need to be considered.

At the local level, the County Council is a signatory to the Nottinghamshire Local Biodiversity Action Plan (LBAP) that aims to aid the recovery of threatened priority habitats and species. Minerals extraction, particularly sand and gravel extraction in the Trent Valley, but also the extraction of resources in other parts of the county, could contribute significantly towards meeting these targets and add to the success of existing wetland reclamation schemes. It is expected that restoration schemes will be carefully considered so that they can deliver as much LBAP priority habitat as possible.

Priority habitats in the Trent and Idle Valleys are:

- Lowland Wet Grassland (Floodplain Grazing Marsh);
- Reedbed and open standing water (mestotrophic and eusotrophic);
- Marsh and Swamp;
- Lowland Fen;
- Wet Woodland;
- Other habitats such as Lowland Neutral Grassland and Mixed Ash-dominated Woodland may also be appropriate in some cases, and there are also potential opportunities for Lowland Dry Acid Grassland and Oak-birch Woodland in some eastern areas of the Trent Valley.

Priority habitats in the Sherwood Sandstone area are:

- Lowland Heathland;
- Lowland Dry Acid Grassland;
- Oak-birch Woodland;
- Other habitats such as Marsh and Swamp may also be appropriate in some cases.

Priority habitats in the Magnesian Limestone area are:

- Lowland Calcareous Grassland;
- Mixed Ash-dominated Woodland;
- Other habitats such as Marsh and Swamp may also be appropriate in some cases.

Local Biodiversity Action Plan (LBAP) priority habitats in areas where the extraction of clay, gypsum and coal takes place should reflect those habitats occurring in the vicinity and will differ depending on locality. More generally, other habitats, including Ponds and Hedgerows, can be incorporated into most restorations independent of location. It is also expected that Eutrophic Standing Waters will be created as a result of quarrying, although this habitat should be minimised as far as possible in favour of the other habitat types listed above.

As a principle, restorations should also seek to restore more extensive areas of a small number of habitats at any one site, rather than try to create smaller areas of many different habitats, so that the value of restored areas is maximised and future management is made easier.

It is recognised that in some cases, creation of habitat may not be appropriate or desirable. In some cases, restoration of leisure uses, or agricultural use may be more appropriate.

Biodiversity Opportunity Mapping

A Biodiversity Opportunity Mapping (BOM) project has been undertaken for the Sherwood and Trent Valley areas to help guide the location and type of conservation activities in these areas and are a tool for helping to deliver habitat creation/restoration targets set in the UKBAP and LBAP. Biodiversity Opportunity Mapping is a process which allows conservation action, such as habitat creation and restoration, to be targeted in areas where it is likely to have the greatest benefit for biodiversity, given limited resources. It is based on knowledge of where habitats (and species) currently occur in a given area, and is informed by other constraints (such as other land uses).

The mapping process has also emerged out of a growing recognition that the County Council cannot just focus on protecting important, but isolated sites. Work is needed to expand these sites and to reconnect them at a landscape scale, to allow species to move in response to climate change.

The Biodiversity Opportunity Maps have been used to guide the restoration criteria set out in the Site Allocation Development Briefs in Appendix 3 for each of the selected future minerals sites that lie with the BOM project area.

Areas of Multiple Environmental Sensitivity

A project to assess Areas of Multiple Environmental Sensitivity (AMES) has been undertaken to compliment the Biodiversity Opportunity Mapping work. The aim of this project was to identify a more co-ordinated approach to planning for landscape change in the Trent Valley and to try to arrest further erosion of its essential qualities. A similar study has also been completed in Derbyshire along the River Trent.

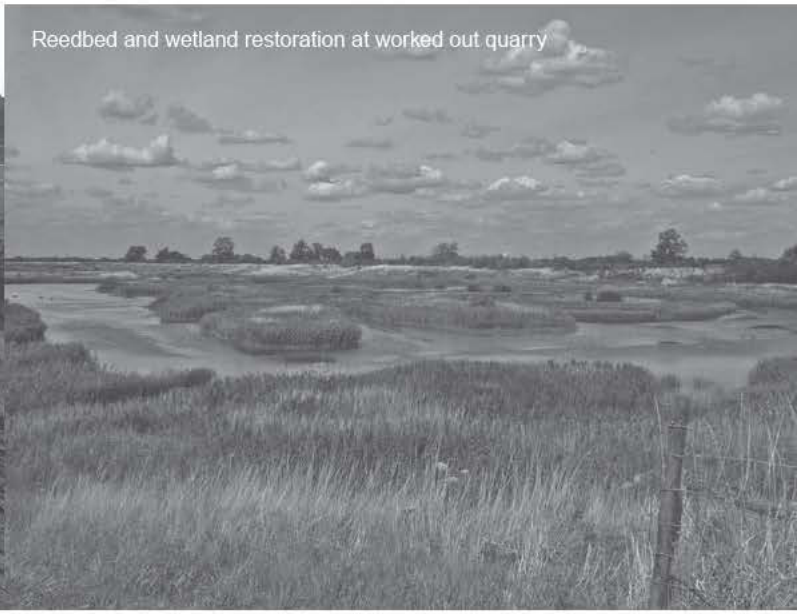
Areas of landscape considered to be of multiple environmental sensitivity relating to ecology, the historic environment and landscape attributes were identified through the project. The findings of the study identified that:

- 24% of the area is of very high multiple environmental sensitivity;
- 18% of the area is of high multiple environmental sensitivity;
- 33% of the area is of medium multiple environmental sensitivity; and
- 25% of the area is of low multiple environmental sensitivity.

Of the total land area of the Trent Valley, the areas with the greatest environmental constraint (areas of very high multiple environmental sensitivity) tend to be concentrated close to the River Trent itself alongside the areas of high environmental sensitivity which are also strongly associated with the river corridor.

As the sand and gravel resource is also predominately found in the Trent and Idle Valleys, the majority of existing and future sand and gravel working will be located in the highest areas of sensitivity. It is therefore important to use the work that has been done through the AMES alongside the Biodiversity Opportunity Mapping work to identify areas that are of the highest quality and either enhance or restore these areas through restoration process.

Environmental Assessments submitted with planning applications in the areas identified in both the Biodiversity Opportunity Mapping and Areas of Multiple Environmental Sensitivity Projects will need to fully consider the outcomes of this work and the associated issues identified in the relevant site briefs in terms of restoration.



Reedbed and wetland restoration at worked out quarry

SP3: Climate Change

What you told us at the Issues and Options stage…

- Overall comments received were generally supportive of the approach to climate change with an even preference split between the two options. It was also suggested that the new Local Plan includes either a general climate change policy, or an overall strategic climate change policy;
- There was considered to be a lack of emphasis on the value of recycled and secondary minerals in minimising extraction and reducing Co2 impact;
- In considering exploitation of hydrocarbon resources, especially unconventional gas, it is important that the climate change implications of exploitation are taken into account;
- The new plan needs to ensure each relevant policy takes climate change issues into account;
- The importance of climate change and meeting the Government's objectives for carbon reduction is such that it should be addressed specifically in the Local Plan;
- Support was given to the recognition of the need for restored landscapes to allow permeability for migrating species responding to climate changes;
- It was considered important for there to be specific policies dealing directly with climate change issues such as promotion of sustainable transport and energy efficiency;
- We would be addressing some of the issues of climate change by exploiting the Nation's coal reserves instead of importing at a much higher environmental cost from overseas;
- For each mineral type, it would be worth noting how climate change will impact on these processes throughout this plan as well as having a specific section highlighting climate change.

Issues and Options Sustainability Appraisal Findings:

- Two options were appraised Option A: Develop a strategic policy specifically covering climate change and Option B: Climate change issues to be covered by other policies in the Plan (no specific policy). There was little difference between these two options. Option A was marginally more positive in that, in relation to SA objective 7 (minimise impacts on and increase adaptability to climate change), it was considered that a specific strategic policy would be useful in highlighting the overall importance of climate change issues.
- In conclusion, it was felt that there should be an overarching strategic policy but it should also be backed up by climate change issues being embedded in complementary development management policies.

The Government is committed to tackling the causes of climate change and planning can play a key role in securing reductions in greenhouse gas emissions, minimising

vulnerability and providing resilience to the impacts of climate change. This is central to the economic, social and environmental dimensions of sustainable development. Nottinghamshire County Council is committed to reducing the impact of minerals development on climate change.

In order to achieve this, all new mineral developments should facilitate a reduction in greenhouse gases, deliver energy generation from renewable or low carbon sources and avoid increased vulnerability to the impacts of climate change, including flooding where practicable.

POLICY SP3 – CLIMATE CHANGE

1. All minerals development, including site preparation, operational practices and restoration proposals should minimise their impact on the causes of climate change for the lifetime of the development. Where applicable development should assist in the reduction of vulnerability and provide resilience to the impacts of climate change by:

   a) Being located, designed and operated to help reduce greenhouse gas emissions and move towards a low-carbon economy;
   b) Avoiding areas of vulnerability to climate change and flood risk. Where avoidance is not possible, impacts should be fully mitigated;
   c) Developing restoration schemes which will contribute to addressing future climate change adaptation.

Justification

The Nottinghamshire Sustainable Community Strategy (SCS) is committed to taking a sustainable approach to planning development that responds to the challenges of climate change.

The nature and scale of new minerals development will influence the extent to which climate change resilience measures will be most effective and appropriate. Mineral development can provide a number of opportunities to mitigate and adapt to the impacts of future climate change. This could include:

- Restoration of mineral sites and restoration schemes that include measures such as flood water storage, the creation of biodiversity habitats, living carbon sinks, wider ecosystem services
- The use of on site renewable energy installations
- The use of sustainable modes of transport, low emission vehicles, travel plans
- Sustainable Drainage Systems (SuDS), water efficiency and adaptive responses to the impacts of excess heat and drought

Other measures may include the sustainable use of resources through the use of recycled and secondary aggregates in the construction industry.

SP4: Minerals Provision

What you told us at the Issues and Options Stage…

- Generally respondents supported the identification of site specific locations, the main reasons given for this view point included certainty for the community and the industry, and guidance in the NPPF relating to the requirement to only prepare additional development plans where clearly justified;
- The main reasons given by most other respondents for identifying broad strategic areas included the fact that sand and gravel sites were not considered strategic and that by identifying broad areas it would be easier to develop a long term strategy that adequately assessed all the competing factors;
- The main focus of attention was on sand and gravel however comments relating to other specific minerals were made and these will be considered as part of the process;
- There was general agreement that provision for Bulwell stone is needed. No specific comments about how the plan should make provision although the industry has stated potential extensions to Yellowstone Quarry could be possible.

Issues and Options Sustainability Appraisal Findings:

- The Sustainability Appraisal (SA) concluded that the likely impact of all of the options on most of the SA objectives was uncertain due to the generality of the options which is inevitable at this stage. Consequently only SA objectives 1 (ensure adequate provision of minerals) and 13 (support wider economic development and promote local job opportunities) were relevant in distinguishing between the options;
- Option A (allocate specific sites) scored the most favourably against these two SA objectives, with its likely impact being very positive against 1 and positive against 13 as this option would provide the most certainty that demand for minerals would be met and the consequent development to extract the minerals would support wider economic development and provide some local job opportunities;
- Options B (areas of search) and D (consider on a mineral by mineral basis) were positive rather than very positive in their likely impact on SA objective 1 whilst their link with SA objective 13 was not clear;
- Option C (criteria based policies) was considered to have a negative impact on SA objective 1 as it involved a risk that adequate provision may not be made and its likely impact on SA objective 13 was uncertain.

Introduction

Minerals are essential to support economic growth and our quality of life by providing the raw materials to create new infrastructure, buildings and goods as well as providing energy and a source of local jobs. Nottinghamshire is rich in minerals and supplies a wide range of markets both regionally and nationally. In line with national policy, it is important to identify suitable reserves to provide a steady and adequate supply of minerals to meet future needs.

Minerals are a finite natural resource and can only be worked where they are found. It is therefore essential that we make the best use of our available resources in order to secure their long-term conservation. Within Nottinghamshire our priority is therefore to extend existing sites, in preference to developing new sites, and to encourage the use of secondary and recycled aggregates far as possible (see Policy MP5) and safeguard important reserves from sterilisation (see Policy DM13).

POLICY SP4 – MINERALS PROVISION

1. The strategy for the supply of minerals in Nottinghamshire is as follows:
   a) Identify suitable land for mineral extraction to maintain an adequate and steady supply of minerals during the plan period;
   b) Give priority to the extension of existing sites, where economically, socially and environmentally acceptable;
   c) Allow for development on non-allocated sites where a need can be demonstrated; and
   d) Ensure the provision of minerals in the plan remains in-line with wider economic trends through regular monitoring.

2. All proposals for mineral development must demonstrate that they have prioritised the avoidance of adverse social, economic and environmental impacts of the proposed development, or make use of appropriate mitigation measures.

Justification

To ensure that adequate and steady supplies can be maintained the National Planning Policy Framework sets out specific requirements for the different types of minerals according to their end use and the need to maintain a land bank of permitted reserves for certain minerals. Where the existing level of reserves is not sufficient for the plan period, the Minerals Local Plan must identify suitable land to meet the expected shortfall. As part of preparing this plan, the Council has carried out a detailed assessment of its remaining permitted mineral reserves and identified where additional reserves should be provided. Therefore, alongside the strategic position set out in policy SP2 above, polices MP1 – MP12 make specific provision for each of the minerals which are likely to be worked in Nottinghamshire during the plan period.

Extending existing sites, where feasible, is considered to be more sustainable than developing new sites. This can be more efficient as the existing site access and processing plant can be used to recover mineral that may not otherwise be worked and the environmental impacts are generally less than those associated with opening up a new site. However it is important that the cumulative impacts of continuing minerals development are considered in all cases. All new proposals, whether allocated or otherwise, will need to be assessed in terms of their impact on local communities and the environment including matters such as landscape, heritage, biodiversity and climate. These issues are set out in more detail within our detailed development management polices DM1-18 which provide appropriate safeguards for the location, operation, restoration and after-use of future minerals sites.

SP5: Sustainable Transport

What you told us at the Issues and Options Stage…

- It is important that the transportation of minerals is taken into consideration from the very outset of the development of the Plan so as to embed the principles of sustainable travel, the need to minimise the impact upon the highway network, and encourage opportunities for modal shift;
- It was considered important that the Plan seeks to reduce the impact of HGV trips generated by mineral extraction development on the local and strategic highway networks;
- The plan should encourage the use of barge traffic along the River Trent as this would reduce the impact of transport on rural roads. Barge transportation potentially offers a more sustainable option but more detailed studies are required including the additional infrastructure required and the economic viability;
- There is currently no present location identifiable for purposes of wharfage together with ancillary structures - all of which will be in the Zone 3a Floodplain classification. It is accepted that this is regarded as a permissible development as essential infrastructure but it too will be at risk of damage and closure due to flooding at regular intervals (greater than 1 in 5);
- Transport of minerals in these sustainable times is important and although the River Trent is certainly usable for barge transport, it has its limitations and can only transport raw materials to locations where there is wharfage and stock piling facilities. Road haulage will still remain a major flexible mode of transport;
- The plan should be prioritising areas with good access to transport networks;
- The plan should seek to minimise the transport impact of minerals by promoting sites close to main markets and avoiding long distance road transport of bulk minerals where possible;
- Site allocations should optimise the use of existing infrastructure and minimise community or transport safety impacts;
- It was suggested that if gravel is extracted, there should be a requirement for rail transport to be used to avoid heavy lorries going through villages; there is a local rail line already in place from Nottingham to Newark following the River Trent.

Introduction

Most minerals extracted in Nottinghamshire are currently transported by road, as this often the cheapest and most flexible way of serving a diverse range of markets. Historically some sand and gravel has been transported by barge and there may be potential for some minerals to be moved by water or rail in future.

Minerals development therefore has the potential to generate large volumes of HGV traffic which can have adverse impacts on local communities in terms of noise, air pollution, vibration and dust. Increased levels of traffic can also cause potential safety issues for

other road users and increase the level of greenhouse gas emissions impacting on the climate.

When dealing with proposals for future mineral extraction we will need to consider the distances over which minerals need to be transported, how they are to be transported, and assess the likely impacts on the natural and built environment, climate, local amenity and quality of life. In order to minimise any possible transport related impacts we will seek to encourage alternative, more sustainable forms of transport.

POLICY SP5 – SUSTAINABLE TRANSPORT

1. All mineral proposals should seek to maximise the use of alternatives to road transport such as river barge transport. All new mineral working and mineral related development should be located as follows:
   a) within close proximity to existing markets to minimise transport movement; and
   b) within close proximity to the County's main highway network and existing transport routes in order to avoid residential areas and minor roads and minimise the impact of road transportation.

2. Proposals requiring the bulk transport of minerals or minerals waste/fill by road will be required to demonstrate that more sustainable forms of transport are not viable.

3. All minerals proposals will be subject to a Transport Assessment and will be required to mitigate against any anticipated transport impacts of the development highlighted and improve accessibility and safety for all modes of travel.

4. Where appropriate developer contributions will be sought for transport/ highway improvements.

Justification

Minerals in Nottinghamshire are predominantly transported by road, generating significant HGV movements which can impact on local amenity, environmental quality and climate issues. The National Planning Policy Framework highlights the importance of reducing both greenhouse gases and congestion. Consequently, developments which generate significant movement should be located so as to minimise the need for travel and maximise the use of sustainable means of transport.

Wherever possible therefore, minerals sites should be located close to their end market in order to minimise overall transport distances. However, this will not always be feasible where the site is needed to supply a regional or national market. This underlines the need to promote alternative, more sustainable forms of transport such as barge or rail transport.

Sand and gravel is a relatively low cost mineral and not generally cost effective to transport over long distances. However, it can be transported economically over long distances by water. Barge transport has historically been used to transport sand and gravel along the River Trent to Yorkshire and Humberside from Besthorpe quarry north of Newark and studies have shown there is potential to increase water-borne freight on parts

of the river. However, restrictions on barge sizes upstream of Cromwell Lock may restrict the viability of barging minerals downstream to Nottingham.

Rail transport of minerals is possible, but expensive, and therefore only likely to be viable over very long distances. Its potential use will also depend upon on whether there is sufficient infrastructure and capacity on the rail network. Pipelines and conveyors can be used to move minerals on-site from the extraction area to the processing plant reducing the need to use heavy machinery minimising noise and dust. In certain cases it maybe possible to use conveyors or pipelines to import fill materials such as power station ash on to quarries as part of the restoration although this is only possible if the source of the material is close by.

Where road transport is necessary, sites should be located close to the main highway network in order to minimise potential impacts on local communities and Nottinghamshire's environment. In line with national policy, proposals should be accompanied by a Transport Assessment or Transport Statement to set out the transport issues associated with the proposed development and what measures will be needed to manage those issues. This may include improvements to the existing transport infrastructure to improve junction visibility or vehicle capacity, or the use of routeing agreements to control traffic movement and direct vehicles away from sensitive areas such as residential areas ort important habitats. This can be achieved by the use of planning conditions or legal (S106) agreements where appropriate. Policy DM9 considers highway safety and vehicle movements/routeing in more detail.

SP6: The Built and Natural Environment

What you told us at the Issues and Options Stage…

- The plan should state that biodiversity should be protected as well as enhanced, should consider what could be achieved through restoration;
- National benefits should not be used to offset local impacts;
- It was suggested that surface coal proposals can have significant scope for positive restoration but there should be no damage to existing environmental assets such as SSSIs and local wildlife sites;
- Objectives should include recognition that land can be restored back to agriculture rather than focusing on Biodiversity Action Plans alone;
- Coal Bed Methane should not be acceptable in areas of high biodiversity or where risk to ground from waste water;
- Archaeology is a main environmental issue in terms of influencing the overall sand and gravel strategy and other heritage assets and their wider settings are important;
- The impact on Conservation Areas and listed buildings needs to be considered;
- A long term landscape wide approach to maximise benefits rather than a fragmented piecemeal approach to restoration was suggested;
- Landscape character should be a major environmental factor in a strategy which considers where future sand and gravel extraction should occur;
- Safe and appropriate access to quarries should be considered as this is a key strategic issue;
- The new plan should focus on the potential impact on nearby residents' lives and loss of agricultural land;
- The wider issues in relation to road network, distance of sites from end users and impacts on local amenity need to be considered.

Issues and Options Sustainability Appraisal Findings:

- There was no clear link between this option and many of the Sustainability Appraisal (SA) objectives and the impact was uncertain with regard to ensuring adequate provision of minerals and protecting high quality agricultural land;
- The likely impact was very positive in relation to protecting and enhancing townscape and landscape and positive in terms of protecting the historic environment and quality of life;
- In relation to recreational activities, it was decided that the only realistic option would be to include the promotion of recreational opportunities in a site restoration policy. There was no clear link between this option and many of the SA objectives and the impact was uncertain with regard to promoting sustainable patterns of movement and protecting high quality agricultural land;

- The likely impact was positive in relation to promoting more efficient use of land, promoting local job opportunities and protecting and improving human health and quality of life;
- Two options were appraised with regards to heritage assets; Option A: Take forward the existing Minerals Local Plan approach, promoting a proportionate response to proposals that will impact upon the County's historic environment (including consideration of the area of special archaeological interest at South Muskham) and Option B: Give weight to new mineral extraction proposals that would help fill the knowledge gaps about the County's archaeology. The SA concluded that there was no clear link between either of the two options and many of the SA objectives. Both options were considered to have a positive impact in respect of promoting local job opportunities, but in terms of protecting biodiversity, landscape and high quality agricultural land, Option A was likely to have a positive impact, whereas Option B had no clear link;
- In respect of protecting the quality of the historic environment, Option A was likely to have a very positive impact whilst Option B was likely to have a negative impact as the latter would not actually protect the archaeological resource. Option A was therefore clearly judged to be more sustainable;
- For agricultural land, it was decided that there was only one realistic option. It would not be acceptable to adopt the 'do nothing' approach and a policy based on locally specific issues could incorporate promoting opportunities to improve agricultural land where appropriate. The SA concluded that this option had no significant effect on, or no clear link to, many of the SA objectives and the impact was uncertain in relation to ensuring adequate provision of minerals, protecting townscape/landscape and supporting economic development. However, the likely impact was very positive in terms of protecting high quality agricultural land and soil and positive regarding promoting more efficient use of land.

Introduction

Mineral extraction by its very nature can have a detrimental impact on the natural and built environment, albeit temporary in nature. Nevertheless, mineral extraction can also bring about many environmental benefits. The restoration of worked out quarries can significantly increase biodiversity, provide increased access and recreational opportunities or return the land to agriculture.

POLICY SP6 – THE BUILT AND NATURAL ENVIRONMENT

1. All mineral development proposals will be required to deliver a high standard of environmental protection and enhancement and ensure that new development does not adversely impact on the following unless it can be demonstrated that there is an overriding need for a development and any impacts can be fully mitigated and/or compensated for:

- International, national, regional and local nature conservation sites and priority habitats and species as identified in the Nottinghamshire LBAP;
- Sites of geological interest;
- Historic (designated and non-designated), archaeological and cultural assets;
- Landscape and townscape character;
- Best and most versatile agricultural land and soil;
- Flood risk;
- Infrastructure;
- Highways;
- Community amenity; and
- Water quality and air quality.

Justification

The County contains important habitats and species and it is essential these areas are maintained for future generations. The most important areas are protected by international, national or local designations. At present the county has 1 Special Area of Conservation (SAC), 1 National Nature Reserve (NNR), 68 Sites of Special Scientific Interest (SSSI), 28 Local Nature Reserves (LNR), 1300 Sites of Importance for Nature Conservation (SINC) and 130 Regionally Important Geological/ Geomorphological sites (RIGs).

It is therefore important to ensure that new minerals development is correctly managed and that no adverse impacts occur to designated sites.

Nottinghamshire is not only rich in minerals, but also has an extensive historic environment. Mineral extraction by its very nature can destroy archaeological sites and features, however, where sites are properly investigated and recorded it can provide major opportunities to understand the County's rich archaeological heritage and what they tell us about the past. Mineral extraction may affect the setting of heritage assets, be they buries remains, buildings, landscapes or places and extraction can cause change in the character of the landscape.

A recent research project looking at aggregate resources in Nottinghamshire and the archaeological remains they contain reveals that discoveries within mineral workings have yielded a wealth of new information about the Iron Age and Roman periods in the Trent and Idle Valleys. The report also highlights the fact that other areas outside the Trent and Idle Valleys are currently poorly understood due to the lack of archaeological investigation.

The Strategic Stone study for Nottinghamshire (2013) undertaken by the British Geological Survey (BGS) highlights the wide variety of local stones that have been quarried in the past. These stones are a key component of the county's local distinctiveness and could begin to make an important contribution in the future. To achieve this goal will require the protection of access to those resources.

National policy states that the significance of the most important heritage assets and their settings should be protected, and that balancing the need for development against potential harm to heritage assets needs to be proportionate. This is reflected in current minerals policy. One local issue concerns the current Minerals Local Plan designation of an area of national archaeological importance near South Muskham. The site has a very

high concentration of crop marks present and there is a lack of detailed information about the nature of the remains. The basis of this designation needs to be re-appraised before it is considered for designation in the new Plan.

The landscape character of Nottinghamshire is complex and has been created from the interaction of natural and man made influences, such as geology, soil, climate and land use. All landscapes hold value, with some having the potential to be improved and restored. Many mineral developments have the potential to change the landscape, but their restoration can also help to improve landscapes, especially those which may be of a lower quality.

In order to manage future landscape alterations Nottinghamshire County Council has completed a Landscape Character Assessment (LCA) which divides the County into eleven Landscape Character Areas, of which the Trent Washlands is particularly under pressure from minerals development. Each Landscape Character Area has a unique combination of elements and features making them distinct. The LCA can be used to provide special protection to a specific feature, identify suitable mitigation measures when loss is unavoidable and is valuable in the design of restoration schemes.

Much of the county's land is in agricultural use. It is a vital natural and economic resource that needs to be protected from unsuitable development.
Minerals development often involves large areas of land and is limited to areas where the mineral naturally occurs and agricultural land quality is often heavily influenced by the underlying geology. This means that a balance has to be made between the need for the mineral and the protection of the agricultural land. Land quality varies from place to place. The Agricultural Land Classification (ALC) provides a method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system. The ALC system classifies land into five grades, with Grade 3 subdivided into Subgrades 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a. The majority of sand and gravel extraction in the Trent and Idle Valleys will result in the substantial permanent loss of agricultural land to wetland which along, with other development pressures, is causing a continuous erosion of the County's finite agricultural resources.

Minerals extraction by its very nature can have significant effects on the existing environment and the amenity of those living nearby and visiting Nottinghamshire. It is therefore important that proposals for new minerals development take into account the potential issues to ensure that where possible they are avoided in the first instance. Potential impacts include noise, dust, increased levels of traffic and loss of landscape. Further details in relation to potential impacts on amenity are set out in Policy DM1.

National guidance seeks to ensure that the environmental effects of minerals extraction such as noise and dust should be controlled, mitigated or removed at source. This includes information on the proximity of minerals workings to communities, dust emissions and noise standards limits.

Environmental Impact Assessment (EIA) regulations require an assessment of the likely significant environmental effects of some minerals development. EIA is undertaken by developers as a means of drawing together, in a systematic way, an assessment of the likely significant environmental effects of certain types of minerals proposals.

Where there is a possibility that a proposed mineral development will require an EIA, developers are advised to consult the County Council well in advance of a planning application, and formally request an opinion on whether an EIA is required and, if so, the scope of such an assessment.

Minerals development by its very nature will at some point affect surface and or ground water resources. This could be as a result of pumping water from areas where mineral is worked below the water table or where mineral is extracted in the flood plain. These activities could have impacts on a much wider area than just the boundary of the proposal. It is therefore important that these impacts are avoided and reduced through good design and site management.

Flooding from rivers is a natural process that plays an important role in shaping the natural environment. However, flooding threatens life and causes substantial damage to property and infrastructure. Although flooding cannot be wholly prevented, its impacts can be greatly reduced through good planning and management. Such planning will have to take account of the impacts of potentially more extreme flood events.

National policy requires all local plans to take flood risk into account and where possible to direct development to areas of low risk. For some minerals, especially alluvial sand and gravel, this may not always be possible and development in the floodplain will be unavoidable, as has occurred on a large scale in the Trent and Idle Valleys. The issue here is to look at those options that pose the least risk and to also assess opportunities where mineral extraction can improve flood storage capacity and defences.

In order to appraise these risks the County Council has undertaken a Strategic Flood Risk Assessment (SFRA). The aim of the SFRA is to map all forms of flood risk and use this as an evidence base to locate new development wherever possible in low flood risk areas.

Major flood risks exist along the Trent Valley and its tributaries and these risks may be increased by climate change.

Future mineral extraction within high risk areas is unlikely to be avoidable but mineral reclamation schemes can in some cases provide opportunities to reduce flood risks.

SP7: The Nottinghamshire Green Belt

Introduction

Nottinghamshire has one green belt which is located in the southern part of the County it comprises of an area of more than 43,000 ha and covers land around Greater Nottingham, Nottingham City and rural village areas. The Green Belt was designated to mainly prevent coalescence between Nottingham and Derby.

POLICY SP7 – THE NOTTINGHAMSHIRE GREEN BELT

1. Minerals development can be considered as appropriate in the Green Belt and will be particularly supported where high quality restoration maintains the openness of the land and its ability to meet its purpose as green belt.

Justification

The National Planning Policy Framework requires local planning authorities to '*plan positively to support the purpose of the Green Belt by avoiding inappropriate development, and to enhance the beneficial use of the Green Belt'*. Mineral extraction is considered to be appropriate development within the Green Belt provided it preserves the openness of the Green Belt. This is because it is a temporary use and should continue to contribute towards the separation of settlements and should not conflict with the purposes of including land in the Green Belt.

The construction of new permanent minerals buildings is not considered to be appropriate within the Green Belt.

CHAPTER 4: MINERALS PROVISION POLICIES

As explained in Chapter 3, minerals resources are very important to the county and we are required to plan for a steady and adequate supply of minerals to meet future needs. Strategic policy SP4 sets the overall context for future mineral provision whilst the minerals provision policies set out within this chapter identify how and where these needs will be met for the different types of aggregate, industrial and energy minerals.

In most cases existing sites which have not yet been worked out will meet some of this demand but the policies show where additional provision will be needed to make up any expected shortfall. Where a shortfall is identified, this will be met from a combination of new and/or extended sites although the priority is to extend existing sites wherever possible in line with our strategic objective (SO1) to improve the sustainability of minerals development.

In order to identify the range of sites that could be available for mineral extraction over the plan period the council has worked with the minerals industry and local landowners to understand the location of workable mineral resources across the county. In response to a 'call for sites' exercise, which was most recently updated in 2012, mineral operators and landowners submitted a range of sites for which there were proven minerals resources. This included both new sites and extensions to existing sites.

These sites have been assessed carefully to decide which are the most suitable and realistic options to allocate in the Plan. The sites which are being put forward are shown in Policies MP2-12. The justification text following each policy includes more detail about each proposed site and how they relate to any existing permitted site. Full details of this site assessment process can be found in background paper – site selection on the Council's website[1].

All of the sites will be subject to site allocation development briefs which will deal with site specific issues, including how the sites should be restored. These individual site development briefs are included in Appendix 3.

[1] www.nottinghamshire.gov.uk/minerals

MP1: Aggregate provision

What you told us at the Issues and Options Stage…

- The impacts of the current recession should be taken into account when considering future minerals requirements;
- The roles of secondary and primary aggregates should be considered.

Issues and Options Sustainability Appraisal findings:

- As the options for establishing a local apportionment set out in the issues and options document became obsolete (see below for details), the SA was completed on a new set of alternatives. These were:
  - Option A – Develop a Local Aggregate Assessment in line with NPPF guidance (10 year average sales plus other relevant local factors);
  - Option B – Adopt existing draft apportionment figure;
  - Option C – Develop a different approach based on local assessment;
  - Option D – Do not identify an apportionment; leave it to the market to decide.
- Due to the lack of specific information on each option, the SA found that the likely impact of all four options was uncertain in terms of many of the more specific SA objectives on things such as biodiversity and landscape. However, there were significant differences between the options in relation to certain other SA objectives.
- Overall this meant that Options C and D scored less favourably than A and B. Option B scored highly in terms of ensuring the adequate provision of minerals, however it was noted that this option would actually result in oversupply of aggregates, which was reflected in very negative scores in terms of the potential loss of high quality agricultural land and negative impact on promoting efficient use of land and resources.
- Option A was therefore considered to be most favourable.

Introduction

Aggregates make a significant contribution to the construction industry, accounting for around 90% of the materials used. In England alone nearly a quarter of a billion tonnes are consumed every year. Sustaining this level of demand is of national concern and raises major planning and environmental issues. All mineral planning authorities are required to plan for a certain proportion of the national demand for all aggregate minerals, known as the local apportionment, and to maintain a certain level of permitted reserves, known as the landbank.

Nottinghamshire has historically produced around 30% of the regional sand and gravel production, most of which comes from the Trent and Idle Valleys. This river or 'alluvial' mineral is mainly used in the production of concrete. Building and asphalting sand is produced from the Sherwood Sandstone resource but in much smaller quantities.

Nottinghamshire's limestone production is relatively small, accounting for just 0.1% of the regional output, reflecting the County's limited resource of this mineral.

POLICY MP1: AGGREGATE PROVISION

1. To meet identified levels of demand for aggregate mineral over the plan period (2012-2030) the following provision will be made:
   - 49.02 million tonnes of Sand and Gravel
   - 8.74 million tonnes of Sherwood Sandstone
   - 1.52 million tonnes of Limestone

2. The County Council will make provision for the maintenance of landbanks of at least 7 years for sand and gravel and Sherwood Sandstone and at least 10 years for limestone, whilst endeavouring to maintain a steady and adequate supply over the plan period.

3. Proposals for aggregate extraction outside those areas identified in policies MP2, MP3 and MP4 will be supported where it can be demonstrated there is an identified shortfall in the landbank.

Justification

Since the publication of the issues and options document, new national policy has altered the way in which local authorities are required to establish the need for aggregate in their area. The NPPF requires MPAs to produce a Local Aggregates Assessment (LAA) on an annual basis. This assesses both the demand for and supply of aggregates based on the average of the last 10 years production/sales data. This should take into account all possible supply options including the availability or otherwise of secondary or recycled aggregates as well as land-won sources. It also takes account of any significant local infrastructure projects that are taking place, or planned, and any opportunities or constraints that might influence future aggregate production.

MPAs are also required to work with other local Mineral Planning Authorities through an Aggregate Working Party to ensure that the approaches taken remain consistent and adequate supply is maintained. Nottinghamshire is part of the East Midlands Aggregate Working Party.

The first LAA was adopted by the County Council in July 2013 and sets out the 10 year production averages for each aggregate (shown in table 1 below). The average, annual, production figure provides the baseline from which to estimate the total amount of aggregate that will be required over the life of the Plan. This has been calculated over the 19 year period from 2012 - 2030 (starting from the most recent published figures as of December 2011).

Table 1 LAA Average Production Figure and Estimated Total Aggregate Demand

	LAA derived annual production figure	Estimated demand 2012-2030 inclusive (19 years)
Sand and gravel	2.58	49.02
Sherwood Sandstone	0.46	8.74
Limestone	0.08	1.52

Some of the estimated demand shown in Table 1 above, can be met from our remaining permitted reserves (i.e. the mineral that is left in existing quarries that can still be worked). However, for most minerals, this will not be sufficient to cover the whole of the plan period and we will need to permit additional reserves in order to make up the shortfall.

For each of the minerals (sand and gravel, Sherwood Sandstone and limestone) this has been calculated by deducting the estimated level of permitted reserves from the total amount of aggregate required over the life of the Plan. However it is important to remember that the level of permitted reserves can change over time as minerals operators re-assess the available reserves at each site. The level of remaining reserves will also be affected by any change in the annual output from each site. This highlights the importance of annual monitoring as set out in Chapter 6.

One of the most important indicators for aggregates is to assess how long the current stock of permitted reserves is likely to last. This is known as the 'landbank'. All MPAs are required to maintain a landbank of at least seven years' worth of sand and gravel and ten years' worth of limestone. The average production figures set out in the LAA will be compared against the permitted reserves of aggregates to monitor the level of the landbanks. If permitted reserves fall significantly below the required amount this could trigger a review of this section of the plan. Further information is available in the monitoring chapter.

The specific provision policies MP2 – MP4, below, show how the Plan will meet the anticipated shortfalls for each aggregate mineral and how the proposed sites have been selected.

MP2: Sand and Gravel provision

What you told us at the Issues and Options Stage…

- The future sites should be located to serve the markets, minimising the need for transportation;
- Support, in principle, for the use of barge transportation;
- The use of water transport should not be a requirement of planning permission due to changes in the economic climate and unknown viability;
- A number of existing limitations of the River Trent were highlighted;
- Consideration must be given to the need for (and current lack of availability of) ancillary facilities;
- Extensions to existing sites should be prioritised rather than allocating new sites;
- Flood risk should be minimised;
- Agricultural land and biodiversity should be protected;
- Concerns raised regarding specific sites (although no Sand and Gravel sites were identified in the Issues and Options document).

Issues and Options Sustainability Appraisal findings:

- Making provision for sand and gravel extraction utilising allocations due to a greater level of certainty was found to be the most sustainable option, particularly in relation to the sustainability objective for ensuring adequate provision of minerals and supporting economic development;
- Specific Sustainability appraisals for the site listed in Policy MP3 below can be found in the Sustainability Appraisal document.

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	32.0Ha
MP2b	Bawtry Road North	16.0Ha
MP2c	Scrooby North	12.1Ha
MP2d	Scrooby South	8.8Ha
MP2e	Besthorpe East	33.0Ha
MP2f	Besthorpe South	63.5Ha
MP2g	Girton West	13.2Ha
MP2h	Langford Lowfields South	70.5Ha
MP2i	Langford Lowfields North	29.0Ha
MP2j	East Leake North	15.0Ha
MP2k	East Leake East	52.0Ha
MP2l	Cromwell South	52.0Ha

- New sand and gravel sites:

MP2m	Barnby Moor	45.1Ha
MP2n	Botany Bay	114.3Ha
MP2o	Coddington	126.0Ha

Note: The above sites are shown on the Policies Map

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 (see Table 1).

There are currently 11 permitted sand and gravel sites (SGa-k) located around the county containing estimated reserves of 19 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 included in Table 1 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. However more recent estimates put forward by the minerals industry put this shortfall figure slightly lower at 25 million tonnes.

It is nevertheless clear that the plan therefore has to allocate further reserves to make up this shortfall in provision. Policy MP2 above identifies 12 extensions to existing sites (MP2a-l) and 3 new sites (MP2m-o) 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 24 million tonnes of reserves. A delivery schedule, which looks at how each of the extensions and new sites will contribute to the shortfall, can be found in Appendix 2.

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. (See appendix 4 – inset 2)

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 middle of 2017. There are no further extensions possible to the quarry and it will be restored to low lying wetland. (See appendix 4 – inset 2) The worked out quarry will be replaced by Barnby Moor (MP2l).

Finningley (SGc)

The existing permitted quarry is located to the south east of Finningley village and crosses the boarder between Nottinghamshire and Doncaster Metropolitian Borough Council (MBC). The quarry has sufficient permitted reserves until the end of 2014 at a planned output of 400,000 tonnes per annum. The quarry serves the South Yorkshire and North Nottinghamshire markets. The quarry will be restored to agricultural land and woodland.

An extension was put forward and is being allocated (Policy MP2a). The extension is part of a bigger proposal that includes an area within Doncaster MBC (which falls outside of the Nottinghamshire Minerals Local Plan). The eastern end of the extension will be worked

from 2015 for a year and covers an area of 25.5ha before production moves to the Doncaster side of the site. Production will return to Nottinghamshire in 2018 when the western extension, approx 6.4ha will be worked for a year. Output for both sites is expected to be 400,000 tonnes per annum. (See appendix 4 - inset 1)

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. (See appendix 4 – inset 7)

Bawtry Road (SGe)

The existing permitted quarry is located between Misson to the east and Newington to the south. The quarry was permitted in 2001 and has sufficient permitted reserves until the end of 2014 at a planned output of 60,000 tonnes per annum. The quarry will be restored to agricultural land.

A northern extension to the quarry was put forward and is being allocated (Policy MP2b). The extension covers 15 Ha and will be commenced once existing permitted reserves have been worked in approximately 2015. 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 20 years. (See appendix 4 – inset 2)

Scrooby (SGf)

Extraction has taken place at Scrooby since the 1930s working both sand and gravel and Sherwood Sandstone (see policy MP3 for Sherwood Sandstone) The current permitted sand and gravel quarry site is expected to be worked out by the end of 2017. Restoration will be to agriculture and wetland.

Two extensions to this area were put forward during the ‘call for sites’ and have been allocated.

The Northern extension (Policy MP2c) is expected to start in 2018 once the permitted site has been worked out. The allocation covers 12ha and is expected to last 8 years until 2026. Output is planned at 80,000 tonnes per annum and would utilise the existing processing plant.

The Southern extension (Policy MP2d) will replace Scrooby north in 2026. The allocation covers 8.7ha and is expected to last 8 years. Output is planned at 80,000 tonnes per annum. (see appendix 4 – inset 4)

Cromwell Quarry (SGg)

The existing quarry is located to the north-west 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 is likely 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 (Policy MP2l) was put forward and is being allocated. The extension covers 52ha and will be commenced once the existing sites is worked out in 2027. Output is planned at 200,000 tonnes per annum and has an expected life of 14 years. (See appendix 4 – inset 13)

Besthorpe Quarry (SGh)

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 300,000 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 previous workings have been restored to agriculture and wetland areas.

Two extensions were put forward and have been allocated.
The eastern allocation (Policy MP2e) covers an area of 33ha and has an expected life of 8 years. It would follow on from the permitted quarry maintaining output at its current level until the end of 2026.

The southern allocation (Policy MP2f) covers an area of 63ha and has an expected life of 16 years. It would follow on from the eastern extension maintaining output at its current level until the end of 2036.
However, as the southern extension is located close to Langford Lowfields quarry and both sites are under the same ownership it is possible the southern allocation could be processed through Langford. If this is the case it would mean the life of Besthorpe quarry is reduced but increased for Langford. The capacity of the processing plant and details such as lorry movements may limit any increased output from Langford Lowfields quarry. (See appendix 4 – inset 13)

Girton Quarry (SGi)

The existing quarry is located 8km north of North Collingham and 16km from Newark. The quarry is currently 'mothballed' and has permission until 2016. The operator has stated they are likely to submit an extension of time until 2026. Output at the quarry is planned at 450,000 tonnes per annum. The quarry will be restored back to agriculture and wetland conservation.

A western extension (Policy MP2g) was put forward and is being allocated. The allocation area covers 13.2ha and has an expected life of 1 year. The extension would have an output of 330,000 tonnes per annum and would work the last remaining reserves at the quarry. (See appendix 4 – inset 11)

Langford Lowfields Quarry (SGj)

The existing quarry is located between Langford and Collingham, north of Newark. The quarry has sufficient permitted reserves until the end of 2016. Planned output at the quarry is 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 but after assessing the sites, the southern and northern extensions are being allocated.

The southern allocation (Policy MP2h) covers an area of approx 70ha and has an expected life of 11 years. It would follow on from the permitted quarry and would maintain output at its current level utilising the current plant site and access until the end of 2027. Within the allocation boundary there is a Scheduled Ancient Monument (SAM) which the operator has stated would fund preservation by record. If this is deemed unsuitable the size of the allocation is likely to be reduced.

The Northern allocation (Policy MP2j**)** covers an area of approx 30ha and has an expected life of 3 years. This area would be worked after the southern extension and will maintain output at its current level utilising the current plant site and access until 2030. (See appendix 4 – inset 13)

East Leake Quarry (SGk)

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 have been put forward and are being allocated.

The eastern extension (Policy MP2k) covers 52ha and has an expected life of 13 years. It would follow on from the permitted site maintaining output at its current level utilising the existing processing plant and access until 2029.

The northern extension (Policy MP2j) covers 15ha and has an expected life of 4 years. It is expected this site would follow on from the previous extension maintaining output at its current level utilising the existing processing plant and access. (See appendix 4 – inset 23)

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. The allocation covers an area of 45ha and is expected to be operational in 2018 as a replacement to the existing Newington Quarry. The site has an estimated life of 5 years and an output of 150,000 tonnes per annum. The quarry would serve the South Yorkshire and North Nottinghamshire markets. (See appendix 4 – inset 6)

Botany Bay (MP2n)

This is an allocation for a new green field allocation located 3km northwest of Retford. The allocation will cover 114ha. The quarry will be a replacement to the Mission - Finningley quarry (SGc) once this has been worked out in 2018. The site has a planned output of

200,000 tonnes per annum and is expected to last 12 years until 2030. (See appendix 4 – inset 6)

Coddington (MP2n)

This is an allocation for a new greenfield site located to the north east of Coddington, 6km east of Newark. The allocation covers 126ha and is expected to be operational in 2023 as a replacement to the Barnby Moor quarry (Policy 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. (see appendix 4 – inset 15)

Did you know?

Every person in the UK will use around 10 tonnes of mineral each year -10 tonnes equates to the weight of 7 average family cars.

MP3: Sherwood Sandstone provision

What you told us at the Issues and Options Stage…

- There was support for a more geographically driven consideration taking into account such things as market demand, limiting concentrations of quarries and impacts on greenfield sites, communities and habitats/species;
- The two potential approaches should not be considered mutually exclusive and that there was value in the consideration of demand for different grades of sand, but that specific landbanks for each would probably be unworkable, partly due to lack of knowledge on resource.

Issues and Options Sustainability Appraisal findings:

- The allocation of specific sites was considered to be the most sustainable option for making provision for Sherwood Sandstone.
- Specific Sustainability appraisals for the site listed in Policy MP5 below can be found in the Sustainability Appraisal document.

Introduction

Sherwood Sandstone is a specialist form of sand and gravel that is used primarily as asphalt and mortar sand. It accounts for around a sixth of the County's sand and gravel production. The Sherwood Sandstone resource covers nearly a quarter of the County, occurring as a broad belt between Nottingham and South Yorkshire. This is also a major aquifer and serves as an important water source for a wide area. Different grades and colours of sands (which have varying end uses) are found in the resource, however there is no comprehensive geological information about how these are distributed.

POLICY MP3: SHERWOOD SANDSTONE PROVISION

1. An adequate supply of Sherwood Sandstone will be identified to meet expected demand over the plan period from:

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

   SSa Rufford
   SSb Burntstump
   SSc Bestwood 2
   SSd Carlton Forest
   SSe Scrooby Top
   SSf Serlby

b) The following extensions to existing sites.

MP3a	Bestwood 2 East	5.7Ha
MP3b	Carlton Forest North	12.2Ha
MP3c	Scrooby Top North	20.7Ha

Note: The above sites are shown on the Policies Map

Justification

Based on the Sherwood Sandstone requirement set out in the aggregate provision policy (MP1), the plan needs to provide almost 9 million tonnes of Sherwood Sandstone over the plan period.

There are currently 6 permitted Sherwood Sandstone sites (SSa-f) which contain estimated reserves of just under 7 million tonnes. Whilst these sites will 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 included in Table 1 and the estimated Sherwood Sandstone reserves from 2011, it is estimated that we need to provide an additional 2 million tonnes of Sherwood Sandstone up to 2030. However more recent estimates put forward by the minerals industry have increased the shortfall to approximately 4.5 million tonnes as it is probable that some of the current permitted reserves may not be worked

The plan will therefore have to allocate further reserves to make up the expected shortfall in provision. Policy MP3 therefore identifies proposed extensions at three existing sites as discussed below. The delivery schedule, in Appendix 2 shows how these extensions are expected to contribute towards the shortfall.

Site information

Rufford (SSa)

The existing quarry is located 1 km to the north of Rainworth. The quarry is largely worked out and will close at the end of 2013 upon the expiry of its current planning permission. (See appendix 4 – inset 12)

Burntstump (SSb)

This existing quarry is located 3.5km west of Calverton. The quarry has sufficient permitted reserves until the end of 2021 at 75,000 tonnes per annum. Subject to a time extension the remaining reserves would be worked until 2038. Restoration will be to agriculture and woodland. (See appendix 4 – inset 12)

Bestwood 2 (SSc)

This existing permited quarry is located 1 mile south of Ravenshead and 6 miles south of Mansfield. The quarry has sufficient permitted reserves until 2021 but subject to a time extension will be worked to 2031 at its planned output of 200,000 tonnes per annum. The site restoration will include heathland, marshland and sandstone cliff habitats.

An eastern extension was put forward and is being allocated (Policy MP3b). The allocation covers 5.7 Ha and will be commenced once the existing permitted reserves have been worked. Output is planned at 250,000 tonnes per annum for 10 years and will utilise the existing processing plant and access. (See appendix 4 – inset 18)

Carlton Forest (SSd)

This existing quarry is located 2 miles to the north east of Worksop. The quarry has sufficient permitted reserves until the end of 2016 at its planned output of 25,000 tonnes per annum. The quarry will be restored to agriculture.

A northern extension to the quarry has been put forward and is being allocated (MP3c) The allocation covers 12.2 ha and will be commenced once the existing permitted reserves are worked out. Output is planned at 50,000 tonnes per annum for 11 years and will utilise the existing processing plant and access. (See appendix 4 – inset 5)

Scrooby Top (SSe)

This existing quarry is located 1 mile north of Ranskill and 3 miles south of Bawtry. The quarry has sufficient permitted reserves until the end of 2017 at its planned output of 120,000 tonnes per annum. The quarry will be restored to agricultural land and wetland.

A northern extension was put forward and has been allocated (Policy MP3d) The allocation covers 20.69 ha and will be commenced once the existing permitted reserves are worked out. Output is planned at 120,000 tonnes per annum for 35 years and will utilise the existing processing plant and access. (See appendix 4 – inset 4)

Serlby (SSf)

This existing quarry is located 3km miles south of Harworth. Planned output at the quarry is 25,000 tonnes per annum although the quarry has not been worked since 2000. The quarry has planning permission until late 2014 but it is unlikely that any further extraction will take place. (See appendix 4 – inset 3)

MP4: Limestone provision

What you told us at the Issues and Options Stage…

Holbeck

- There was general support for aggregate extraction at this site in terms of the sustainability (and lack of sterilisation) benefits to be gained from utilising the whole of the mineral resource when industrial dolomite extraction takes place;
- Concerns were expressed about impacts of the development, particularly with regard to Creswell Crags as well as landscape, biodiversity and heritage;
- Specific concerns about water availability were raised by the Environment Agency as the area is closed to any new consumptive abstraction licences;

Steetley

- Comments were received regarding changes in vehicle movements, both in terms of those supporting the potential reduction resulting from the development and those suggesting that this reduction will not in fact occur, partly due to possible industrial dolomite extraction;
- Concerns were expressed about a variety of local impacts, including those to residential amenity, archaeological and historical assets, habitats, public rights of way and the water table;

Nether Langwith (extension)

- General support for this site favouring extensions rather than the allocation of new sites;
- Suggestions that this site should be closed if either Steetley or Holbeck were allocated or its future extension should be considered in the next minerals plan, when it is likely to have become a relevant issue.

Sustainability Appraisal findings:

- Sole use of a criteria-based policy was found to be the least favourable option.
- The Sustainability Appraisal found that a mixed approach would be marginally better than a purely allocations based policy (on the basis of a mixed approach having a slightly more positive impact in terms of supporting economic development and promoting local job opportunities).

Introduction

Around 60 million tonnes of limestone are extracted in Great Britain every year making it the largest mineral extractive industry in the Country[2]. The majority of this is used as an aggregate, the remainder being used in the cement, chemical, glass, iron and steel industries and agriculture. Limestone is also an important source of building and ornamental stone.

[2] UK Minerals Statistics Yearbook 2011 British Geological Survey 2012, page 12

Although the East Midlands is one of the most important limestone producing areas, Nottinghamshire's resources are relatively limited and the only permitted reserves are at Nether Langwith Quarry (currently dormant). Limestone is the only 'hard rock' of any economic interest to be found in the County and by regional standards output is very low.

POLICY MP4: LIMESTONE PROVISION

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

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

      LSa Nether Langwith

Note: The above site is shown on the Policies Map

Justification

Based on the limestone requirements set out in the aggregate provision policy (MP1), the plan does not need to provide any further limestone as current permitted reserves at Nether Langwith quarry are adequate to cover the plan period. The quarry was expected to have sufficient reserves until 2017 at a planned output of 250,000, however actual output has been much lower and it hasn't been worked for around 5 years. The operator is likely to submit an application for an extension of time which would mean current reserves would last at least until the end of the plan period. The quarry has the potential to be extended and if acceptable could meet any shortfall, however due to the uncertantiy surrounding the life of the existing site the extension is not being allocated.

As part of the call for sites two other potential sites were put forward which have been considered. Holbeck quarry and Steetley quarry

Holbeck Quarry

The proposed quarry near Holbeck is predominately for the extraction of industrial dolomite and is discussed in further detail in section 9 – Industrial Dolomite. However aggregate limestone lies beneath the industrial dolomite and could be worked at the same time. Whilst the aggregate is not required to maintain our landbank it would in principle be more sustainable and would prevent sterilisation of the mineral. At present it is not proposed to allocate the aggregate limestone reserves as the extraction will depend on the industrial dolomite being worked. Further work will therefore be required at the time of any planning application to consider need for the limestone.

Steetley Quarry

A proposed quarry was put forward at Steetley predominantly for limestone extraction and some small scale industrial dolomite extraction. The scheme put forward proposed to supply limestone directly to the pre-cast concrete works adjacent, thus avoiding any lorry

movements via the Public Highway. This scores well in terms of sustainability and reduced carbon emissions however this has to be assessed against the lack of need for the mineral and other adverse environmental impacts caused by the extraction. Any industrial dolomite extracted on the site would also need to be transported off site by road. Because of the lack of identified need for the limestone it has not been allocated.

Did you know?

Minerals are not only used in construction, but also in a range of more surprising products such as cosmetics, drugs and food.

MP5: Secondary and recycled aggregates

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to secondary and recycled materials.

Issues and Options Sustainability Appraisal findings:

- Options for secondary and recycled materials were not specifically assessed in the Sustainability Appraisal.

Introduction

The terms 'recycled' and 'secondary' aggregate are often used interchangeably. The term 'recycled aggregates' refers to aggregates that have been used previously in construction. Recycled aggregates can comprise construction and demolition wastes, asphalt road planings and used railway ballast.

'Secondary aggregates' are by-products of other processes, and will not have been used previously as aggregates. They include colliery spoil, china clay waste, slate waste, power station ashes, blast furnace and steel slags, incinerator ashes and foundry sands.

POLICY MP5: SECONDARY AND RECYCLED AGGREGATES

1. Development proposals which will increase the supply of secondary and/or recycled materials will be supported where it can be demonstrated that there are no significant environmental, transport or other unacceptable impacts.

Justification

Government policy continues to encourage the use of secondary and recycled materials in construction in order to reduce the need for material from traditional sources. There are substantial amounts of these materials that could contribute further to aggregate supply. In order to conserve natural resources, aggregates (and products manufactured from aggregates) should be recycled wherever possible.

Although, there is considerable potential for using certain waste materials as secondary aggregates, large quantities either remain on site or end up in landfill. Making greater use of by-products and other waste materials will therefore also help to meet the Government's aim of reducing waste disposal to landfill. The Nottinghamshire and Nottingham Waste Core Strategy sets out strategic policies to promote both temporary and permanent facilities for recycling aggregates centres.

Where recycled materials are technically, economically and environmentally acceptable as substitutes for primary materials, then they should be used. It is accepted, however, that

there may be problems associated with the ability of these materials to meet required British Standard specifications, and that their availability or location might make their use disadvantageous in economic terms.

It is recognised that many of the adverse environmental effects resulting from the extraction of primary aggregates apply to the use of secondary materials. This is because the processes are similar involving the generation of noise, dust and visual intrusion, and road transport using heavy goods vehicles. Incorporating recycling and secondary aggregate operations into an existing mineral development could also increase the overall harmful effect that the site has on the amenity of the surrounding area, or could increase the life of the development beyond that which is considered acceptable.

The Mineral Planning Authority, therefore, has a role to play in assessing the net cost and benefits of establishing recycling and secondary aggregate operations within mineral development in order to ensure that they are sited in appropriate locations and that the adverse impact on the local environment does not outweigh the benefits of producing alternatives to primary aggregates.

MP6: Brick Clay provision

What you told us at the Issues and Options Stage…

- Reference was made to the strategic importance of clay and the reaffirmation in the National Planning Policy Framework of the requirement for a 25 year landbank;
- The majority of responses on the provision of resources preferred the use of allocations of specific sites, supported by criteria-based policy for decisions on new or satellite sites;
- Concerns were expressed regarding the damage of clay extraction on the environment, some specifically with regard to current amenity issues at Kirton and potential impacts at Bilsthorpe and the possible eastern extension to Dorket Head;
- There was support for a new or updated criteria-based policy that includes a broad scope of criteria to include environmental, economic and social impacts;
- Concerns were raised lack over the lack of certainty for the public regarding broad areas of search and the rigorous assessment the use of broad areas of search would need. However, there was support from the industry on this option.

Issues and Options Sustainability Appraisal findings:

- Two options were found to be equally favourable for this issue; the allocation of sites/extensions and the use of a combination of allocations and criteria-based policy based on need.
- Both of these options were found to have a very positive impact in terms of ensuring an adequate supply of minerals to meet demand and of supporting wider economic development and promoting local job opportunities.
- Both options had the potential for either positive or negative impacts in relation to the promotion of more efficient use of land and resources (extensions would be positive, greenfield sites, negative) and the promotion of sustainable patterns of movement and modes of transport (extensions would be close and possibly enable use of conveyors whereas new sites could require longer haulage routes).

Introduction

Brick clay refers to the clay and shale used in the manufacture of building and construction materials. In Nottinghamshire the clay extracted is used for facing bricks, pavers, roofing tiles and clay pipes, although nationally other important uses include cement production.

Extraction currently only takes place from the Mercia Mudstone resource to the east and south of the county. Resources do exist within the smaller Edlington Formation and Coal measures to the west of the county, however these have not be worked since the 1970s. No detailed assessment has been completed regarding the areas of the Mercia Mudstone which are best suited to brick manufacture, however the 'Gunthorpe Formation' location close to both of Nottinghamshire's existing brickworks has been identified by the current operators as particularly suitable.

POLICY MP6: BRICK CLAY PROVISION

1. An adequate supply of brick clay will be identified to meet expected demand over the plan period and enable a 25 year landbank to be maintained from:

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

      BCa Kirton
      BCb Dorket Head

   b) The following extensions to existing sites:

      MP6a Kirton West 20.5Ha
      MP6b Dorket Head East 11.7Ha

2. Proposals for clay extraction outside the sites identified above will be supported where it can be demonstrated that the above sites are not deliverable and where a need can be demonstrated.

Note: The above sites are shown on the Policies Map

Justification

There is no national demand forecast or local apportionment for brick clay although the NPPF does require a 25 year landbank of permitted brick clay reserves to be identified. In Nottinghamshire there are two brick works with associated clay pits operated by two national producers - Dorket Head near Arnold and Kirton near Ollerton. Permitted reserves at the two sites are not sufficient to cover the plan period and further reserves will need to be identified. The landbank at both brick pits is estimated at 12 years (as of December 2011). Each is discussed below.

Kirton (BCa)

The existing brick pit is located to the east of Kirton village, 3km from New Ollerton. Clay from the pit is supplied directly to the brick works adjacent with permitted reserves expected to be sufficient until 2023. The existing pit is being restored to agricultural land at a lower ground level.

The operator put forward a western extension (MP6a) which is being allocated. The extension covers an area of 20 Ha and will be commenced once the existing site is worked out. The reserves identified in the extension are expectred to be worked over a 33 period and will continue to supply the existing brick works. The restoration will be to a lower ground level and incorporate agricultural land wetland areas, grassland. (See appendix 4 – inset 10)

Dorket Head (BCb)

The existing brick pit is located to the north of Arnold, 10km from Nottingham. Clay from the pit is supplied directly to the bricks works adjacent with permitted reserves expected to be sufficient until 2023. The existing pit is being progressively restored to agricultural land.

The operator put forward an eastern extension and this is being allocated (MP6b). The allocation covers an area of 11.7 ha and will be commenced once the existing permitted reserves are worked out. The reserves identified in the extension are expected to be worked over a 10 year period and will continue to supply the existing brick works. The site will be restored to agriculture and woodland at a lower ground level rather than being landfilled as is the case with the existing pit.

At the time of writing a planning application for the extension has been submitted and will be assessed against the existing adopted Minerals Local Plan. If this site is granted planning permission there will be no need to identify further reserves at Dorket Head in this plan period. If the application is refused the operator will need to identify a further reserve which would be considered under point 2 of policy MP6. (See appendix 4 – inset 20)

New brickworks and clay pits

Due to the nationally important, strategic nature of brick clay and the situation regarding provision at our existing sites, there is a possibility of new brick pits and associated brick works coming forward. Such applications will need to have regard to the Strategic and Development Management policies of the plan, but more particularly be considered in light of the need for the development and any potential environment, social or economic impact (including consideration of the transport implications of any development and the associated benefits that can be gained from locating pits in close proximity to brick works).

MP7: Gypsum provision

What you told us at the Issues and Options Stage…

- Support for the allocation of Bantycock Quarry, Newark;
- Some concern was expressed at the use of broad areas of search, but the industry highlighted the possible need for this to support the Bantycock allocation, particularly for the much more widely available construction grade gypsum.

Issues and Options Sustainability Appraisal findings:

- The re-allocation of Bantycock Quarry was found to be the most sustainable option (compared to the use of broad locations or a demand based approach utilising the criteria in the development management policies);
- The option to re-allocate Bantycock Quarry scored particularly well in comparison in terms of ensuring an adequate supply of minerals, promoting sustainable patterns of movement and promoting more efficient use of land and resources (both through utilising exiting infrastructure) and supporting wider economic development (due to the high grade of the mineral that would be produced).

Introduction

In Nottinghamshire two distinct gypsum resources are worked. The Marblaegis Mine at East Leake exploits the 'Tutbury Gypsum' and supplies an associated plasterboard plant and plaster works. Bantycock Quarry near Balderton, Newark exploits the 'Newark Gypsum'. The lowest seams at this site are very high quality and are the only mineral of this grade to be found in the UK. It is used in specialist plasters and a wide range of other products ranging from dentistry to food additives.

Since the mid-1990s national and local gypsum production has declined due to increased supplies of desulphogypsum (DSG), a by-product of flue gas desulphurisation plants that have been retrofitted at most coal fired power stations, including all three in Nottinghamshire. The long term future of desulphogypsum is uncertain as new emission controls due in the 2020s could see more coal fired power stations close or switch to other fuels. This will impact on the demand for natural gypsum.

POLICY MP7: GYPSUM PROVISION

1. The extraction of remaining reserves at the following permitted sites will be utilised to contribute towards the provision of an adequate and steady supply of gypsum:

   GYa Marblaegis Mine
   GYb Bantycock Quarry

2. Proposals for gypsum extraction outside the permitted sites identified above will be supported where a need can be demonstrated.

Note: The above sites are shown on the Policies Map

Justification

There is no national demand forecast or requirement to identify a local apportionment figure for Gypsum production and it is up to the industry to identify adequate reserves to maintain production.

Permitted reserves at the Marblaegis Mine (GYa) are sufficient until at least 2026 and represent the full extent of the mine within Nottinghamshire. (see appendix 4 – inset 22) When these reserves are utilised, mining will move eastwards towards Wymeswold in Leicestershire. Future provision for the Marbleagis Mine in Nottinghamshire does not therefore need to be considered in the new Minerals Local Plan.

Permitted reserves at Bantycock Quarry are currently expected to be adequate until around 2035 at current rates of extraction, going beyond the end of the plan period. (see appendix 4 – inset 21) The current adopted plan includes an allocation for a southern extension to the existing quarry, as it was expected this would be required during the plan period. This has not been the case, probably because of the amount of DSG that has been available in recent years. If over the plan period, the amount of DSG available falls significantly demand for natural gypsum will increase and could shorten the expected life of Bantycock quarry. If this happens then policy MP7 allows further reserves to come forward.

MP8: Silica sand provision

What you told us at the Issues and Options Stage…

- All respondents were in agreement that the use of a criteria-based policy was appropriate;
- An additional suggestion was submitted which was that all minerals, including silica sand, should be treated in the same way, with use of an area of search supported by a wide ranging criteria-based policy.

Issues and Options Sustainability Appraisal findings:

- The issues and options considered a number of options for provision in the context of the Two Oaks Farm application not being approved. In this instance, a continuation of the existing policy approach to silica sand provision, a needs-based policy, emerged more favourably than the other options considered of the identification of broad locations or the reliance on development management policies;
- The Two Oaks Farm Quarry application has now been approved therefore the options appraised are no longer relevant and, as the SA stated, a demand based policy will be used. This will be assessed during further stages of the SA process.

Introduction

Silica sand is a non-aggregate form of Sherwood Sandstone that is also known as 'industrial sand'. Unlike aggregate sands, which are used for their physical properties alone, silica sands are valued for a combination of chemical and physical properties. It is used in the making of glass and creating molds and castings in industrial processing. This sand is also used in sand blasting, adding texture to slick roads and as a raw material in production of ceramics and equestrian surfaces. Compared to aggregate sand, silica sand resources are much less widespread. In Nottinghamshire silica sand is found within the 'Nottingham Castle Formation'.

The specialist nature of silica sand products means that the market area is very large and serves local, regional and national requirements. Due to the relatively small volumes of material and the varied destinations all silica sand extracted in Nottinghamshire is currently transported by road.

POLICY MP8: SILICA SAND PROVISION

1. The extraction of remaining reserves at the following permitted sites will be utilised to contribute towards the provision of an adequate and steady supply of silica sand sufficient for at least ten years:

   SLa Ratcher Hill
   SLb Two Oaks Farm

2. Proposals for silica sand extraction outside the sites identified above could take place where it can be demonstrated that there is an identified shortfall in the 10 year landbank.

Note: The above sites are shown on the Policies Map

Justification

There is no national demand forecast or local apportionment for silica sand although the NPPF does require a 10 year landbank of permitted reserves to be identified.

Since 1999 the only operational site in Nottinghamshire has been Ratcher Hill Quarry, east of Mansfield. The quarry produces around 200,000-250,000 tonnes per annum, but the quarry is largely worked out and is expected to close in 2014. A new silica sand quarry at Two Oaks Farm, south of Mansfield, was permitted in 2013. This has reserves of approximately 12 million tonnes and is expected to last for around 40 years. This satisfies the recommended 10 year landbank per quarry (or 15 years when significant new capital is needed) set out in national policy. Assuming production starts in 2014, a 24 year landbank will remain at the end of the plan period (2030), which exceeds the requirements for this mineral over the entire plan period.

Therefore no further reserves are required, however policy MP8 does allow for the assessment of any other proposals in the event of reserves falling below the landbank.

MP9: Industrial Dolomite provision

What you told us at the Issues and Options Stage…

- Comments received reflect those submitted in terms of aggregate limestone extraction (set out in MP4 above);

Holbeck

- There was support for industrial dolomite and aggregate extraction at this site in terms of the sustainability (and lack of sterilisation) benefits to be gained from utilising the whole of the mineral resource;
- Concerns were expressed about impacts of the development, particularly with regard to Creswell Crags as well as landscape, biodiversity and heritage;
- Specific concerns about water availability were raised by the Environment Agency as the area is closed to any new consumptive abstraction licences and about the need for a clear development brief for the site.

Steetley

- Comments discussed that the proximity principle and links to the adjacent factory (and thus lack of vehicle movements) as being the only case for allocating this site, meaning that the sale of some of the mineral as industrial dolomite (resulting in movements off site) would undermine this position;
- Others comments highlighted the importance of making the best possible economic use of mineral resources (as per the National Planning Policy Framework), which would mean that any industrial grade minerals should be sold and used for that purpose.

Issues and Options Sustainability Appraisal findings:

- The result of the Sustainability Appraisal were not clear cut as to which of the options scored more favourably;
- The option of allocating a site was seen as marginally more favourable given it had a very positive impact in terms of ensuring adequate provision of mineral and of supporting wider economic development.

Introduction

Industrial dolomite is an industrial grade limestone that is mainly used in the iron and steel industry. The resource in the UK is rare and locally is only found in parts of the Magnesian Limestone which is mainly worked for aggregate grade mineral. The end market for industrial dolomite products is international due to the scarcity of this high quality mineral.

No industrial dolomite is currently worked in Nottinghamshire, but just across the County boundary at Whitwell in Derbyshire it is quarried alongside aggregate stone on a large scale. Typically around 1 million tonnes are extracted every year at this quarry with the tonnage being split evenly between the industrial grade and aggregate limestone. The industrial dolomite is processed into a range of refractory and other products in the on-site kilns and then exported to 28 countries spanning 4 continents.

POLICY MP9: INDUSTRIAL DOLOMITE PROVISION

1. A supply of Industrial Dolomite, contributing towards international markets will be identified at the following site:

   MP9a Holbeck 35.6Ha

Note: The above site is shown on the Policies Map

2. Proposals for industrial dolomite extraction outside the permitted site identified above will be supported where a need can be demonstrated.

Justification

There is no national demand forecast or local apportionment for industrial dolomite. However, the NPPF states that Minerals Planning Authorities should plan for a steady and adequate supply of industrial minerals. Given the scarcity of the resource and the international market it supplies it will be important to work with Derbyshire County Council in relation to the existing site at Whitwell Quarry, to ensure that this can be achieved.

Reserves at Whitwell quarry in Derbyshire are expected to be worked out by 2025, however due to operational requirements further reserves will be needed before this date to maintain future production. A series of extensions are being proposed mainly in Derbyshire but this includes a site near Holbeck in Nottinghamshire. (Derbyshire County Council are the Minerals Planning Authority responsible for planning decisions for Whitwell quarry and the extensions within Derbyshire).

Holbeck Quarry (MP9a)

This allocation is for a new green field quarry that would act as a satellite extension to Whitwell Quarry. The site covers 35 hectares and is planned to start in 2018. The reserves identified in the extension are expected to be worked over a 10 year period and will continue to supply the existing quarry at Whitwell. As discussed earlier in the limestone section (MP4), aggregate limestone at Holbeck lies below the industrial dolomite and could be worked at the same time. (See appendix 4 – inset 8)

Nottinghamshire and Derbyshire County Councils have been working together and as part of a joint approach Holbeck has been allocated to ensure that future reserves of industrial dolomite are secured.

Due to its proximity, being located close to Cresswell Crags, particular attention will be given to the potential for the Crags to be designated as a World Heritage Site and as such careful consideration will be needed to the potential impacts of this proposed site and the possibility of a designated internationally important site.

Steetley Quarry

As mentioned in MP4 - Limestone provision, Steetley quarry was put forward primarily for limestone extraction, however industrial dolomite could also be extracted alongside the limestone on a small scale. As the quarry is not being allocated for limestone extraction it would be uneconomical to only work the industrial dolomite and therefore it is not being allocated.

Did you know?

The average house uses up to 60 tonnes of aggregate mineral to build. It can be as high as 400 tonnes when associated infrastructure is included.

MP10: Building Stone provision

What you told us at the Issues and Options Stage…

- Comments received discussed that the role of secondary/recycled building stone should be considered before the use of primary materials;
- Attention was drawn to the frequent assumption that building stone quarries need to be small to be acceptable, with a call instead for flexibility in terms of not imposing limits on production levels or on the production of aggregates at building stone quarries;
- Comments regarding the uses and demand for building stone were raised, including conservation and historical purposes;
- Concerns were raised about the impact of Yellowstone Quarry (direct and indirect) on the nearby SSSI, as well as the existing known problems with access;
- Some responses suggested that alternative sites to Yellowstone (or consideration of the wider extent of the resource) should be considered.

Issues and Options Sustainability Appraisal findings:

- The combination of providing for building stone through both allocations and criteria based policies was found to be the most sustainable option in terms of ensuring an adequate supply of mineral through allocations, but then also allowing for additional provision if needed to support production of a range of local building stones through the criteria-based element.

Introduction

The continued quarrying of local building stones play an important role in helping to preserve the historic environment and enhancing the local distinctiveness of an area. Local stone is needed to allow existing historic buildings to be properly repaired and it also means new buildings in historic areas can blend in more effectively. The only building stone currently worked in Nottinghamshire is Bulwell Stone, a buff coloured limestone used as a building stone and more widely as a walling stone used to front many older properties in Nottingham and its suburbs.

POLICY MP10: BUILDING STONE PROVISION

1. The extraction of building stone at the following permitted site will be utilised to maintain future supply:

   BSa Yellowstone Quarry

2. Proposals will need to demonstrate that that extraction will be primarily for non-aggregate use.

Note: The above site is shown on the Policies Map

Justification

National policy is reflected through Strategic Objective 7 (page 15), in that the identification of building stone quarries should be supported to ensure that adequate provision can be made to help conserve the historic built environment and local distinctiveness. Yellowstone quarry at Linby provides building stone to serve the local market and is the only in Nottinghamshire. Output from the quarry is low and future extraction is uncertain as planning permission is due to expire in 2015. The operator is still assessing future options for the site and therefore no further areas have been allocated.

To date no other sites have been put forward, however demand for a specific building stone could drive the need to develop a new quarry, so the use of a criteria-based policy for building stone is considered appropriate for assessing future applications at other sites. This will ensure any proposed developments will need to demonstrate both a need for the mineral and that, in line with Strategic and Development Management Policies, no unacceptable impacts will arise from the development. Particular provision has been put in place to ensure that this specialised material is not used for aggregate purposes in line with national requirements to make the best use of limited resources to secure long-term conservation.

In demonstrating a need regard should be had to the Strategic Stone Study for Nottinghamshire, which sets out the significant building stones used in historical buildings and the potential quarries which could supply it.

MP11: Coal

What you told us at the Issues and Options Stage…

- Comments received highlighted that the Plan should be clear about the strategic environmental issues that will influence where future surface coal mining will be acceptable in principle;
- There were a number of suggestions for specific elements that should be covered, a large number of the respondents also felt that this should be the approach for all minerals, and that there was no reason to single coal out as having different issues;
- In terms of any local benefits that could offset the environmental impact of extraction, there was some concern that this was an improper situation that was tantamount to 'paying' for permission;
- Comments also focused on the benefits derived through restoration and the economic benefits associated with increased employment;
- In terms of colliery tipping, respondents raised the importance of maintaining suitable tipping land to maintain the life of collieries;
- There was general support for the use of criteria (in some cases a broader range than is currently identified) either as a policy in itself, or to also be used to identify specific sites for colliery tipping;
- The importance of maintaining flexibility and not restricting tipping through the identification of too few sites (or through not including general criteria alongside allocations) was also raised;
- Support was expressed for a continuation of the broadly positive approach to coal recovery, as per the existing plan, although there were a number of suggestions that the range of issues to be considered should be widened.

Sustainability Appraisal findings:

- The only realistic option would be to develop a criteria based policy to incorporate a range of criteria and the Sustainability Appraisal of this option was unable to find certain impacts of the approach in the absence of specific policy wording;
- For colliery tipping, the only reasonable option to appraise was that of identifying broad locations where spoil disposal might be acceptable, in line with national guidance. However, due to lack of detail, the Sustainability Appraisal found that the impact on the majority of the SA objectives was either uncertain or there was no clear link. A positive impact was identified for this option in terms of ensuring that there is adequate provision of coal and in terms of supporting wider economic development and local job opportunities.
- Two options were considered in relation to the reworking of colliery spoil, that of using a criteria-based policy (in line with the current approach) or to rely on the development management policies. The impact of the latter option was found to be largely uncertain or with no link or significant effect. It was however found to have a negative impact in terms of ensuring adequate minerals provision and in terms of supporting wider economic development as it would be less likely that proposals

would come forward with this option. Conversely, there was considerably more certainty in terms of the impact of the first option (criteria-based policy) as it is the maintenance of an existing policy. For the majority of SA objectives the impact was found to be positive, resulting in this option scoring much more favourably than the other.

- It was considered that the reworking of colliery spoil tips is an issue which raises specific considerations due to the unique characteristics of these sites and it would be more positive in sustainability terms to have criteria based policy in the Plan addressing the specific environmental issues that such sites raise.

Introduction

Most of Nottinghamshire's coal resources are deeply buried and have to be exploited by deep coal mining. It is only in the far west of the County along the Erewash Valley where the coal measures are exposed, that surface (opencast) extraction is possible. Thoresby Colliery is currently the only active mine in Nottinghamshire, although Harworth Colliery could reopen in the future. A proposal to work surface mined coal at Shortwood Farm near Cossall has been submitted as a planning application and is currently being considered by the County Council. See Plan 4.

Colliery tipping

When coal is mined, a considerable amount of waste spoil is also removed. This has to be disposed of. Both Thoresby and Harworth Collieries have issues with the amount of land available for such disposal. At Thoresby, the spoil from the current permitted mining level will require some new capacity which could probably be found within the existing colliery footprint. However, if any further mining occurred (through exploiting the deeper reserves) the tipping space will need to expand considerably and will require land outside of the colliery footprint. At Harworth Colliery, surrounding land uses mean that a new, remote, green field tipping site will be needed if the colliery is to reopen and have a long term future.

Coal recovery

Historical coal processing was often inefficient and substantial quantities of coal were left in the spoil. At some sites it may now be economic to recover this coal, which can amount to several hundred thousand tonnes in a single large tip. Coal recovery involves the re-excavation of spoil for processing, the remainder of which is then re-deposited within the original tipping area. Langton Colliery tip near Kirkby in Ashfield is currently being reworked and an old tip at Mansfield has previously been worked on this basis. See Plan 4.

POLICY MP11: COAL

1. Permission for the extraction of coal will only be granted where:
   a) the proposal is environmentally acceptable, or can be made so by mitigation; or
   b) the proposal provides national, local or community benefits which clearly outweigh the likely adverse impacts.

Surface mined coal: Incidental mineral extraction

2. Where proposals for surface mined coal are acceptable, proposals for the recovery and stockpiling of fireclays and other incidental minerals will be supported where this does not result in any unacceptable environmental or amenity impact.

Colliery Tipping

3. Proposals for colliery tipping will be supported where:
   a) a need can be demonstrated; and
   b) the proposal is environmentally acceptable.

Reworking colliery spoil tips

4. Applications will be supported for the reworking of colliery spoil tips where the benefits of the development, including addressing the likelihood of spontaneous combustion and substantial environmental improvement of the site, outweigh the environmental or amenity impacts of the development or the loss of established landscape and wildlife features.

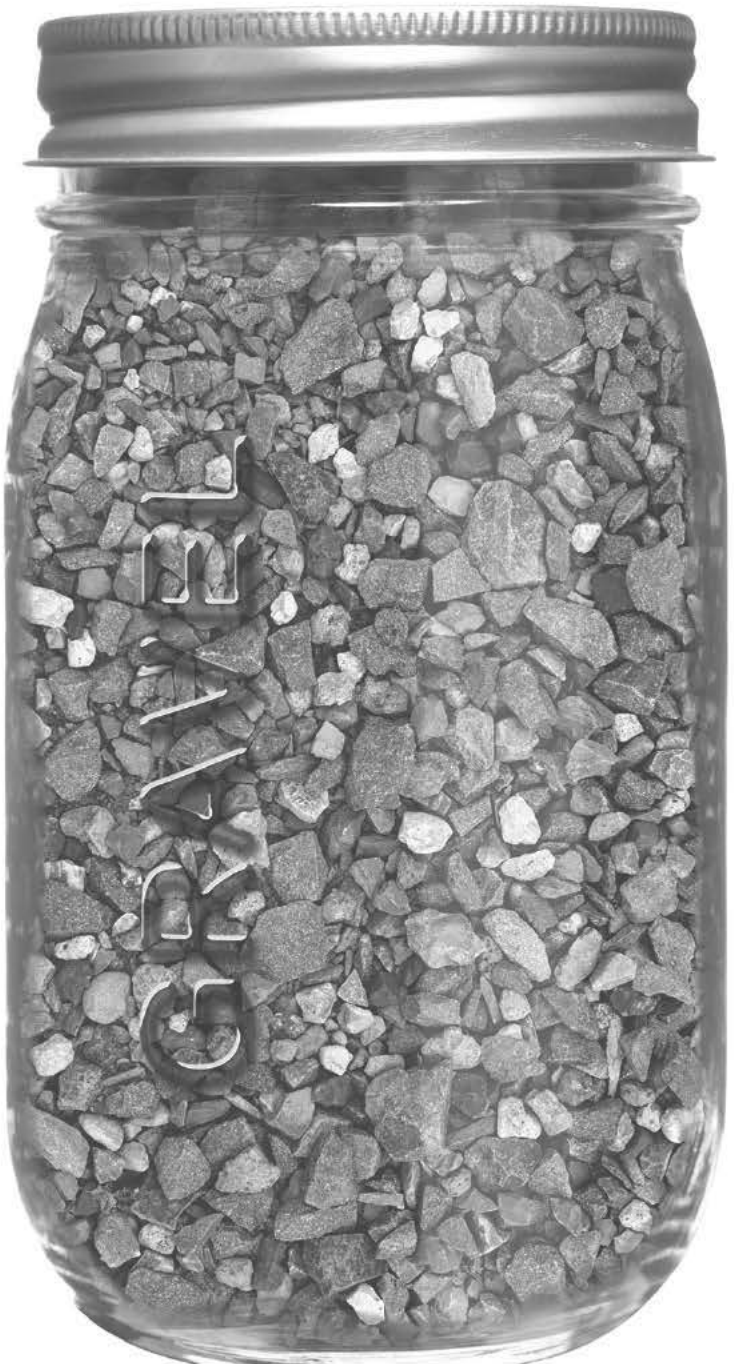
Justification

National guidance sets out a presumption against coal development unless it can be made environmentally acceptable through planning conditions or if not where local or national benefits outweigh the likely impacts. There are no production targets as the Government believes this is a matter for the markets reinforced by long term policy measures.

In principle recovering minerals as an incidental element of another development proposal promotes sustainable development by helping conserve mineral resources that might otherwise be lost. District Councils should advise the County Council on proposals, such as ornamental lakes and major built development, which involve the excavation and removal of significant quantities of soils, overburden and mineral. Incidental mineral extraction is not precisely defined in terms of quantity of mineral worked or duration. It does not, however, apply to minerals development simply because it is small scale and short term. If mineral extraction is a significant reason for justifying or promoting the development, the proposal will need to be assessed against the relevant policies applicable to the mineral being worked.

Colliery tipping at the two existing coal mines may present issues that could determine the long term life of the mines. National policy requires that any areas where colliery spoil may be acceptable should be identified however, sufficient capacity exists at present.

The reworking of colliery spoil tips is in principle a sustainable activity as it recovers coal that has been discarded as waste and it can provide an opportunity to properly reclaim old tips that may have been left in a poor state. However, it can also have a significant impact on the environment in terms of visual intrusion, traffic movements, noise and dust and these impacts have to be weighed against the benefits. Future opportunities for the reworking of tips appear limited, however this could change if it becomes viable to work sites not previously considered, due to factors such as increases in coal prices.



Did you know?

Over the Plan period to 2030 around 110 million tonnes of minerals will be extracted in Nottinghamshire.

MP12: Hydrocarbon Minerals

What you told us at the Issues and Options Stage…

- There was support for retaining the general approach from a range of respondents;
- Respondents highlighted the need for the policies to take account of a wider range of criteria. Particular criteria highlighted included:
  - biodiversity and Local Biodiversity Action Plan priority habitats (for oil)
  - disturbance to nightjar and woodlark and consideration of cumulative effects of emissions of nitrogen on habitats (for mine gas)
  - cumulative impacts (and particularly on biodiversity) and landscape and residential amenity (for coal bed methane);
- Representors suggested that there was no reason to adopt a different approach to coal bed methane (CBM) than any other hydrocarbon (i.e. not identify constraint areas);
- A range of possible criteria was suggested, including; local amenity, district level development aspirations, transport, reclamation potential, impact on heritage assets, biodiversity, landscape character, water resources and residential areas;
- Responses on shale gas were varied. A range of respondents considered that shale gas should be considered as another form of hydrocarbon development and that a broadly positive stance should be adopted;
- Respondents highlighted the wider and more specific constraints and issues associated with the extraction of shale gas;
- Comments were made that due to the potentially unknown and wide ranging impacts of the development, the identification of constraint areas would be difficult and may not be possible.

Issues and Options Sustainability Appraisal findings:

- The option of treating each mineral resource separately, or as part of a joint hydrocarbons policy was assessed. No difference was found between the two due to uncertainties around likely impacts. Inevitably a negative impact was identified for both in terms of the sustainability objectives on climate change and energy efficiency/renewable energy because this issue deals with the production of fossil fuels.

Introduction

Hydrocarbon minerals comprising oil and gas are the most important energy minerals produced and consumed in the UK. In 2010, 125 million tonnes were produced in the UK, whilst 165 million tonnes were consumed[3].

[3] UK Minerals Statistics Yearbook 2011 British Geological Survey 2012, page 68-69

Historically, two main forms of hydrocarbons have been worked in Nottinghamshire; oil and mine gas however other unconventional hydrocarbons such as coal bed methane and shale gas extraction are being developed and could be worked over the plan period. Plan 4 identifies the hydrocarbon resources and sites in Nottinghamshire. Further information regarding the existing permitted sites can be found in the Hydrocarbons background paper on the County Council website.

Oil

Oil has been extracted on a small scale since the Second World War when oil reserves in deeply buried sandstones were identified at Eakring. Since then further oil fields have been identified mostly in north Nottinghamshire but ranging as far south as Rempstone near the boundary with Leicestershire. The oil recovered in Nottinghamshire is of high quality, and mainly used in the plastics and chemical industries, rather than as a fuel. The majority of oil is taken by rail from the central collecting station at Gainsborough to refineries at Immingham, Humberside.

Mine gas

Mine gas refers to the methane that is released from coal seams during deep mining. When mining ceases and ventilation shafts are closed this gas can fill the mineshafts, other voids and can escape to the surface where it can pose a threat to health and safety in the locality. The situation has become much more prevalent recently because of the number of collieries that have closed over the last 30 years in Nottinghamshire. Mine gas can be recovered and burnt to generate electricity.

Coal bed methane

Coal bed methane extraction involves removing methane directly from the seam without actually mining the coal. The industry is most developed in the USA, whilst in the UK and Europe it remains in its infancy. Interest is however developing and it could become a significant energy source for the future. In Nottinghamshire a number of proposals for the exploration and development of coal bed methane have been granted planning permission. Nearly all of Nottinghamshire overlies a potential coal bed methane resource but the most promising prospects are believed to exist in the eastern half of the County due to the geological formation.

Shale gas

Vast quantities of methane exist in many shale deposits worldwide and recent technological advances have now made it economically possible to exploit them. The technology and exploitation of shale gas is most advanced in the USA where it has gone through a period of very rapid development and is now exploited on a very large scale. The UK also has a significant, but as yet largely untested potential shale gas resource. In Nottinghamshire, potential shale gas resources are thought to exist in deeply buried shale deposits found in the far south and far north of the county.

Shale gas extraction is a very intensive activity that involves vertical and horizontal drilling to reach the shale rock layer. A mixture of water, sand and additives is then pumped under high pressure into the bore hole to fracture the rock (a process known as ‘fracking’). The gas trapped in the rock is then released and can be collected. Huge quantities of water and massive energy requirements are involved. This activity has attracted a great deal of public and media interest and controversy surrounds the potential environmental risks.

POLICY MP12: HYDROCARBON MINERALS

Exploration

1. Proposals for hydrocarbon exploration will be supported provided they do not give rise to any unacceptable impacts on the environment or residential amenity.

2. Where proposals lie within an environmentally sensitive area, evidence must be provided to demonstrate that exploration could not be achieved in a more acceptable location and that within the area of search the proposed location would have least impact.

Appraisal

3. Where hydrocarbons are discovered, proposals to appraise, drill and test the resource will be permitted provided that they are consistent with an overall scheme for the appraisal and delineation of the resource and do not give rise to any unacceptable impacts on the environment or residential amenity.

Extraction

4. Proposals for the extraction of hydrocarbons will be supported provided they are consistent with an overall scheme enabling the full development of the resource and do not give rise to unacceptable impacts on the environment or residential amenity.

Restoration

5. All applications for hydrocarbon development will be accompanied with details of how the site would be restored back to its original use once the development is no longer required. The retention of haul roads and hard standing will be permitted only where there are clear agricultural or other benefits of doing so.

6. Where proposals for hydrocarbon development coincide with areas containing other underground mineral resources, evidence must be provided to demonstrate that their potential for future exploitation will not be unreasonably affected.

Justification

The majority of national production is offshore and one of the biggest energy issues facing the UK is the expected rapid decline in our domestic oil and gas production due to the depletion of these resources. By 2020, the UK could be importing around three quarters of its primary energy needs. This factor, combined with high energy prices and recent technological advances has created a very strong impetus to explore and develop new domestic sources of oil and gas. This includes previously untapped 'unconventional' resources such as coal bed methane and shale gas, both of which are known to exist below Nottinghamshire.

The NPPF states that for oil and gas including unconventional hydrocarbons, minerals planning authorities should develop criteria based policies that clearly distinguish between the three phases of development (exploration, appraisal and production) and to address constraints that apply within licensed areas. It also encourages the capture and use of mine gas from abandoned mines. Further guidance on onshore oil and gas was issued in July 2013. National energy policy suggests a broadly positive stance subject to the necessary environmental safeguards would be appropriate.

It is considered that there is no justifiable reason to separate shale gas from other hydrocarbon development. All hydrocarbon development has the potential to deliver national energy requirements, but should be subject to environmental safeguards. Applied to the local circumstances of the Minerals Local Plan, the assessment of environmental and amenity impact (i.e. the constraints on hydrocarbon development) is covered by and can be delivered through the application of the development management policies.

Petroleum Exploration and Development Licenses (PEDL) are issued by the Department for Energy and Climate Change(DECC) under powers granted by the Petroleum Act 1998. The current licenses are shown on the policies map and were issued during a licensing round in 2008.

PEDL licenses allow the holder to explore for and develop unconventional gas; to “search for, bore and get hydrocarbons” subject to access rights,

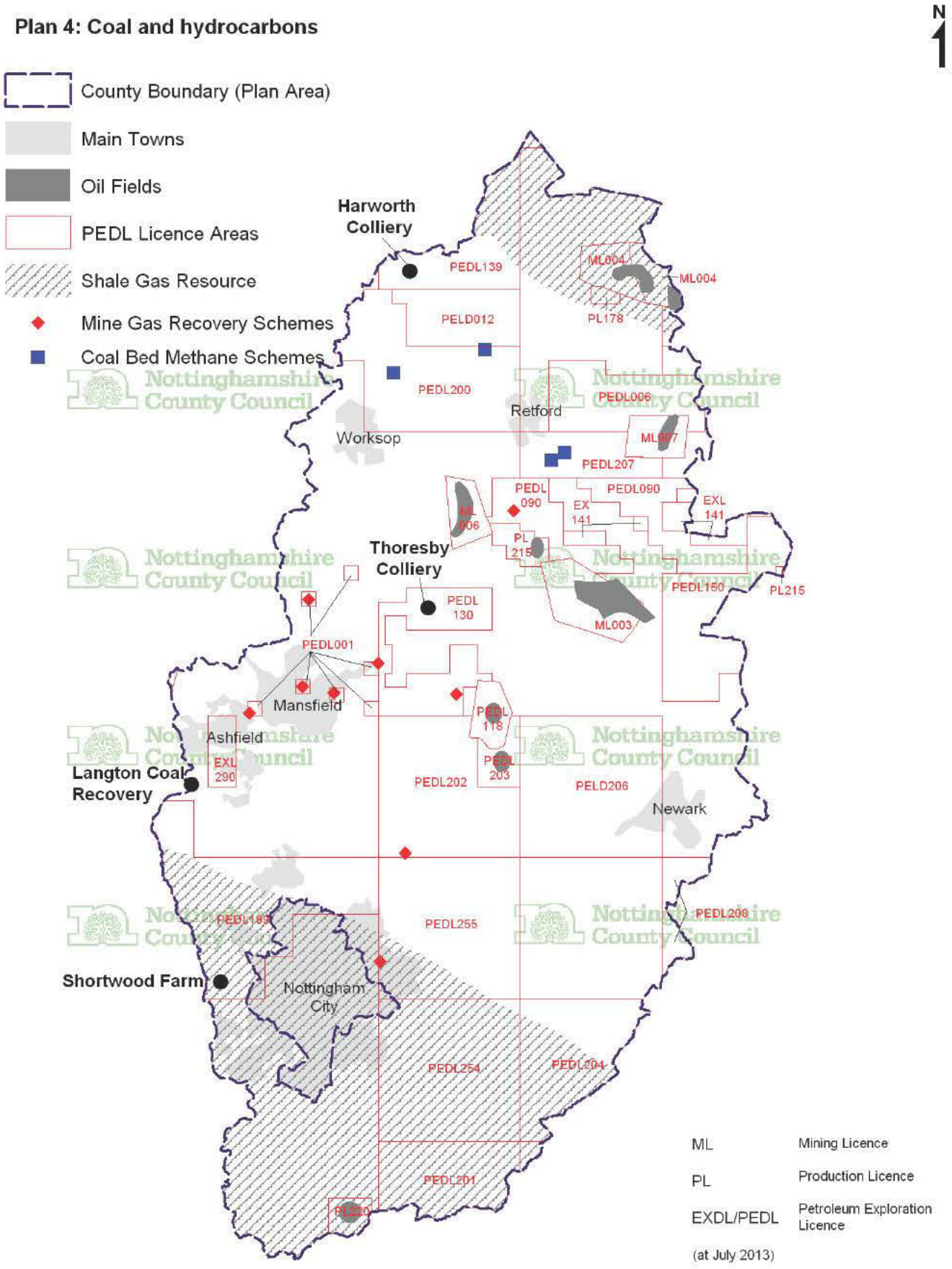
Planning permission is one of the main regulatory requirements that operators must meet before drilling a well for both conventional and unconventional hydrocarbons. The County Council is responsible for granting permission for the location of any wells and well pads, and impose conditions to ensure that the impact on the land is acceptable. However it is not the only regulatory body that permission for extraction is required. They include:

a) DECC – Issues Petroleum Licences, gives consent to drill under the Licence once other permissions and approvals are in place, and have responsibility for assessing risk of and monitoring seismic activity, as well as granting consent to flaring or venting;
b) Environment Agency (EA) – protect water resources (including groundwater aquifers), ensure appropriate treatment and disposal of mining waste, emissions to air, and suitable treatment and manage any naturally occurring radioactive materials;
c) Health and Safety Executive (HSE) – regulates the safety aspects of all phases of extraction, in particular responsibility for ensuring the appropriate design and construction of a well casing for any borehole.

A hydrological assessment will be required in support of any planning application and water availability may be a limiting factor in any proposal.

A Frequently Asked Questions (FAQ) document on unconventional hydrocarbons has been produced by the County Council and can be found on the Council’s website.

Plan 4: Coal and hydrocarbons



For Illustration Only

British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003

CHAPTER 5: DEVELOPMENT MANAGEMENT POLICIES

The purpose of development management policies is to help to deliver the strategic policies and objectives by providing the criteria against which future minerals development will be assessed. They relate specifically to individual, site level criteria such as environmental impacts and standards and provide guidance about how planning applications for minerals development in the county will be assessed.

National guidance promotes the use of policies that plan positively for development and are succinct. The Minerals Issues and Options document (2012) asked a number of questions relating to how this approach could be incorporated into our new development management policies and the areas that should be covered by such policies.

Applicants are advised to discuss proposals for minerals development with the County Council prior to submission of a planning application, as set out in the adopted Statement of Community Involvement (SCI). Such pre-application engagement can enable early identification of potential constraints and has the potential to improve efficiency and effectiveness of the planning system. This approach is encouraged by the Government and more details are set out in the National Planning Policy Framework.

Applications for minerals development should provide sufficient information to allow a balanced assessment to be made. A list of the information that may be required is set out in Appendix 1.

What you told us at the Issues and Options Stage…

- There was overall agreement that the existing policies should be updated and merged where appropriate to ensure that a suite of positively worded policies is created;
- Respondents highlighted the need to minimise any overlap between strategic polices and the Development Management polices;
- A wide range of topics to be covered by the DM polices were put forward as a result of the consultation and these were considered when developing the new policies.

Issues and Options Sustainability Appraisal findings:

- Due to the lack of specific information at the Issues and Options stage it was not possible to determine the impact of this option on any of the Sustainability Appraisal (SA) objectives. Each new policy will be subject to SA as part of the process.

DM1: Protecting local amenity

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to local amenity.

Issues and Options Sustainability Appraisal findings:

- Options for local amenity were not assessed in the Sustainability Appraisal.

Introduction

Minerals extraction by its very nature can have significant effects on the existing environment and the amenity of those living nearby. It is therefore important that proposals for new minerals development take into account the potential issues to ensure that where possible they are avoided in the first instance. Potential impacts include noise, blasting, dust, increased levels of traffic and loss of landscape.
Where it is not possible to avoid this, adequate mitigation measures should be put in place to minimise the impacts of the development. This could include:

- Noise suppression measures such as the use of modern equipment or noise blankets;
- Dust suppression measures such as damping down haul roads, soil management, use of conveyors on site to minimise movements;
- Adequate screening of the site through the use of hard or soft landscaping;
- Location of plant site away from sensitive locations;
- Phased working and restoration;
- Set hours of operation.

POLICY DM1: PROTECTING LOCAL AMENITY

1. Proposals for minerals development will be supported where it can be demonstrated that any potential adverse impacts on amenity associated with the following considerations are avoided and/or adequately mitigated to an acceptable level:

   a. Visual intrusion;
   b. Noise;
   c. Blast vibration;
   d. Dust;
   e. Air emissions;
   f. Lighting;
   g. Transport;
   h. Proximity to properties;
   i. Stability of the land at and around the site, both above and below ground level.

Note: Other considerations may be necessary depending on local circumstances.

Justification

Planning has an important role to play in making sure that new development does not have adverse environmental effects. Ensuring a good standard of amenity for all existing and future occupants of land and buildings is a core planning principle of the National Planning Policy Framework.

New and existing development should not contribute to, or be put at risk from, pollution or other sources of nuisance or intrusion which could adversely affect local amenity.

Noise and dust pollution can arise from minerals development (including transport activities). It is important that applications for new minerals development provide evidence to demonstrate that any emissions will not adversely impact upon local amenity. The nature of the assessment will be dependant on the type and scale of the proposal.

It will be necessary to determine the impact of noise on ambient background levels and within the World Health Organisation's recommended maximum noise levels. The planning process also needs to consider whether any resulting noise from new minerals development could constitute a statutory nuisance under Part 3 of the Environmental Protection Act 1990.

The impact from dust pollution during the construction, operational and restoration phases of the minerals development that will need to be considered including; the impact on air quality from emissions of PM10 (Particulate Matter measuring below 10 microns and below in diameter) and PM2.5 (Particulate Matter below 2.5 microns and below); and the potential for visible dust emissions to give rise to a statutory nuisance to local amenity. A dust assessment study may be required to determine the impact from both the construction and operational phases of new development proposals. Dust monitoring may need to be carried out where dust generating activities are to be carried out close to neighbouring sensitive properties.

The introduction of new development into areas where there is a risk that local amenity may be adversely impacted by emissions should be avoided wherever possible. The planning process should ensure, wherever possible, that the potential for air emissions from site machinery and or related transport to occur from new, or changes to existing development are dealt with through design.

There are a number of potential impacts on community amenities in relation to the transportation of minerals, particularly in areas adjacent roads, these could include:

- Additional number and size of vehicles on the existing road network;
- Damage to roads and verges;
- Spillage onto road causing mud and dust;
- Damage to property from vibration and spray;
- Noise.

Measures to limit the adverse effects on local amenity could include:

- Sheeting of lorries;
- Installation of wheel cleaning facilities;
- Highway improvements and maintenance;
- Hours of working.
- Controlling lorry movements to avoid convoys

These can be achieved by the use of conditions, or where appropriate planning obligations at the planning application stage.

Environmental Impact Assessment (EIA) regulations require an assessment of the likely significant environmental effects of some minerals development. EIA is undertaken by developers as a means of drawing together, in a systematic way, an assessment of the likely significant environmental effects of certain types of minerals proposal.

Where there is a possibility that a proposed mineral development will require an EIA, developers are advised to consult the County Council well in advance of a planning application, and formally request an opinion on whether an EIA is required and, if so, its scope.

DM2: Water resources and flood risk

What you told us at the Issues and Options Stage…

- The majority of respondents suggested a strategic policy, in line with national policy, should be developed;
- A further development management policy would enable applications to be considered on their merits but could risk duplication.

Issues and Options Sustainability Appraisal findings:

- A broad policy requiring the use of the Strategic Flood Risk Assessment for site assessments was the only realistic option.

Introduction

Minerals development by its very nature will at some point affect surface and or ground water resources. This could be as a result of pumping water from areas where mineral is worked below the water table or where mineral is extracted in the flood plain. These activities could have impacts on a much wider area than just the boundary of the proposal. It is therefore important that these impacts are avoided and reduced through good design and management of minerals sites.

POLICY DM2: WATER RESOURCES AND FLOOD RISK

Water resources

1. Proposals for minerals development will be supported where it can be demonstrated that:
   a. Surface water flows at or in the vicinity of the site are not detrimentally altered;
   b. Groundwater quality and levels, where critical, are not altered;
   c. There are no risks of polluting ground or surface waters;
   d. Water resources, where required should be used as efficiently as possible.

Flooding

2. Proposals for minerals development will be supported where it can be demonstrated there will be no unacceptable impact on:
   a. Flood flows and storage capacity;
   b. The integrity or function of flood defences or structures acting as flood defences;
   c. Local land drainage systems;
   d. Local communities.

3. Where the opportunity exists, restoration proposals should seek to incorporate flood risk reduction measures e.g. flood plain storage, flood defence structures, land management land practices etc. to benefit local communities.

4. Proposals for mineral extraction that increase flood risk to local communities must be fully mitigated.

5. Proposals for minerals development should consider the potential for flood storage schemes to be incorporated into restoration proposals to reduce future flooding issues.

6. Minerals development should include Sustainable Drainage Systems (SuDS) to manage surface water drainage.

Justification

National guidance states that inappropriate development in areas of flood risk should be avoided by directing development away from areas of highest risk and setting out a sequential approach for determining appropriate locations.

Mineral extraction within floodplains can reduce storage capacity, impede flows and therefore increase the risk of flooding elsewhere. Potential obstructions can include soil and overburden mounds and fixed plant. Careful design of storage mounds and flood flows will be required to address these issues.

Buildings and hard standing associated with minerals development can lead to an increase in surface run-off and therefore contribute to flooding. Sustainable Drainage Systems (SuDS) that are capable of storing and controlling the discharge of water associated with these areas should be incorporated into the design of proposals.

A Level 1 Strategic Flood Risk Assessment (SFRA) for Nottinghamshire building upon the existing district and borough SFRAs has been prepared to support the minerals plan. The assessment looks at the potential flood risk associated with all the potential minerals sites put forward for possible allocation in the plan and concluded that further assessments would be required at the planning application stage for mineral extraction.

Operators may be required to undertake a site specific Flood Risk Assessment where:

- Development sites are located in Flood Zone 2 or Flood Zone 3;
- The proposed development that is classed as a major development (all sites over 1 ha) and located in Flood Zone 1. Since the risk of fluvial or tidal flooding is minimal such assessments should focus on the management of surface water;
- Development sites located in an area known to have experienced flooding problems from any flood source;
- Where a development site is located within 20m of a Main River.

The assessments should take account of:

- The areas liable to flooding;
- The probability of flooding occurring, both during operations and after;
- The extent and standard of existing flood defences and their effectiveness over time;
- The likely depth of flooding;
- The rates of flow likely to be involved;
- The likelihood of impacts to other areas, properties and habitats;
- The potential effects of climate change;
- Identify opportunities to reduce overall flood risk.

The Environment Agency is the main authority for safeguarding the water environment; it is responsible for improving and protecting inland and coastal waters ensuring sustainable use of natural water resources, creating better habitats and other factors that help to improve the quality of life. Applicants will be required to assess the potential impacts upon the water environment at both extraction and restoration phases, undertaking a hydrological/ hydrogeological investigation where necessary.

The EA's groundwater protection policy uses aquifer designations which are consistent with the Water Framework Directive to reflect the importance of aquifers in terms of groundwater as a resource and also their role in supporting surface water flows and wetland ecosystems.

Nottinghamshire County Council has a strategic role in overseeing the management of local flood risk, flooding from surface water runoff, groundwater and ordinary watercourses and will be working with the Environment Agency and the Water Companies on strategies to tackle this issue. The County Council is developing a Flood Risk Management Strategy in partnership with other organisations including District and Borough Councils, Severn Trent Water, the Environment Agency, Internal Drainage Boards and Nottingham City Council and it is anticipated that, following consultation at various stages, it will be completed in the summer of 2014.

The Trent Valley Internal Drainage Board is a statutory public body and operates in accordance with the Land Drainage Act and other legislation. The Board's District extends through the Trent Valley from South of Nottingham to just North of Gainsborough and part of the Vale of Belvoir. The Board has powers to maintain a selected network of watercourses within the area. Other watercourses are the responsibility of the landowner but the Board also has permissive powers to ensure they are satisfactorily maintained.

DM3: Agricultural land and soil quality

What you told us at the Issues and Options Stage…

- There was no evidence submitted to suggest an approach more suitable to local circumstances was required.

Issues and Options Sustainability Appraisal findings:

- Options for agricultural land were not assessed in the Sustainability Appraisal.

Introduction

Most of the county's undeveloped land is in agricultural use. It is a vital natural and economic resource and protecting the highest quality land from development is an important consideration.

POLICY DM3: AGRICULTURAL LAND AND SOIL QUALITY

Agricultural land

1. Proposals for minerals development located in the best and most versatile agricultural land (grades 1, 2 and 3a) will only be supported where it can be demonstrated that:
   a. There is no available alternative and the need for development outweighs the adverse impact upon agricultural land quality; or
   b. Proposals will not affect the long term agricultural potential of the land; or
   c. Alternative land of lower agricultural value has considerations which outweigh the adverse impact upon agricultural land quality.

2. Where alternative options are limited to varying grades of best and most versatile land, the development should be located within the lowest grade.

Soil quality

3. Measures will be taken to ensure that soil quality will be adequately protected and maintained throughout the life of the development and, in particular, during stripping, storage, management and final placement of soils, subsoils and overburden arisings as a result of site operations;

Justification

The National Planning Policy Framework (NPPF) states that where significant development of agricultural land is considered to be necessary, poorer quality land should be used in preference to that classed as best and most versatile, provided this is consistent with other sustainability criteria.

The NPPF requires the safeguarding of the best and most versatile agricultural land and to provide for the conservation of soil resources. There is a policy preference for restoration to agricultural use where the extraction site is located on higher quality agricultural land (Grades 1, 2 and 3a). Policy DM11: Restoration, After-use and After-care provides additional information.

Agriculture and biodiversity enhancement/ habitat creation need not be incompatible land uses. A balance should be achieved between current and future agricultural need, site-specific biodiversity value and/ or potential, and other considerations. Well-designed agricultural restoration can still deliver significant benefits for 'farmland' biodiversity in the form of hedgerows, lakes and ponds, habitat features and small woodlands. Moreover, many UK Biodiversity Action Plan grasslands such as Lowland Meadows or Floodplain Grazing Marsh can be compatible with commercial livestock systems.

Water features in agricultural restoration can contribute to agricultural irrigation, biodiversity, flood alleviation and storage, and landscape enhancement in a multi-functional way, and should all be considered.

Minerals development involves the use of large areas of agricultural land as extraction is limited to where the minerals naturally occur.

Soils are an important and valuable reclamation material and their proper handling and conservation is essential. The whole soil profile is not just important for agricultural reclamation. It can also be important for other uses, such as sports pitches and nature conservation. Mismanagement of the soil resource is likely to seriously prejudice the standard of reclamation.

For most sites a detailed soil survey will be required to identify soil types, profiles and depths. Where different soils are recorded, separate stripping, storage and replacement may be required to allow reinstatement of the original or suitable alternative soil profiles.

DM4: Protection and enhancement of biodiversity and geodiversity

What you told us at the Issues and Options Stage…

- Biodiversity would be significantly increased through restoration of sand and gravel sites;
- Other documents such as the Green Infrastructure Strategy need to be taken into account.

Issues and Options Sustainability Appraisal findings:

- Options for the protection and enhancement of biodiversity and geodiversity were not specifically assessed in the Sustainability Appraisal however, Policy SP6: Biodiversity led restoration provides more information.

Introduction

The importance of biodiversity cannot be underestimated. It consists of the rich diversity of flora and fauna which form a critical part of the earth's ecosystem which humans are a part of and depend on. Biodiversity brings other benefits too. It can be important in flood protection, filter air and waterborne pollutants, cool the urban environment, moderate noise, foster understanding of the natural environment, increase the attractiveness of an area and therefore encourage more people to interact with their local environment and contribute to healthier lifestyles. It is important to ensure that new minerals development is correctly managed.

POLICY DM4: PROTECTION AND ENHANCEMENT OF BIODIVERSITY AND GEODIVERSITY

1. Proposals for minerals development will be supported where it can be demonstrated that:
   a) There will be no significant adverse impacts on habitats or species or, where impacts cannot be avoided, adequate mitigation and/or compensation relative to the importance of the resource can be put in place; and
   b) They will not give rise to any significant effects on the integrity of a European site, either alone or in combination with other plans or projects, as a result of changes to air or water quality, hydrology, noise, light and dust and that any impacts identified can be mitigated.

2. Nottinghamshire's biodiversity and geological resources will be enhanced by ensuring that minerals development:
   a) Retains, protects, restores and enhances features of biodiversity or geological interest, and provides for appropriate management of these features, and in doing so contributes to targets within the Nottinghamshire Local Biodiversity Action Plan; or
   b) Appropriately mitigates for unavoidable adverse impacts on biodiversity and geology, with compensatory measures used only as a last resort;

c) Makes provision for habitat adaptation and species mitigation, allowing species to respond to the impacts of climate change; and
d) Maintains and enhances the biodiversity network both within the county and beyond through the protection and creation of local wildlife sites and corridors and links and stepping stones between areas of natural green space.

3. Where appropriate, the authority will consider the use of conditions and/or planning obligations to provide appropriate compensatory measures for unavoidable damage to Nottinghamshire's biodiversity and geological resources.

Justification

National guidance states that Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. Distinctions should be made between the hierarchy of international, national and locally designated sites, so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks.

A Habitat Regulation Assessment (HRA) is being carried out alongside the production of this Minerals Local Plan. The purpose of HRA of the Nottinghamshire Minerals Local Plan is to ensure that the protection of the integrity of European sites is part of the planning process. The requirement for HRA of plans or projects is outlined in Article 6(3) and (4) of the European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("Habitats Directive"). The EU Natura 2000[4] network of sites are of exceptional importance in respect of rare, endangered or vulnerable natural habitats and species within the European Community. These sites, which are also referred to as 'European sites', consist of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). There is RAMSAR sites are also included, however, Nottinghamshire does not contain any of these.

The HRA concludes that the potential effects associated with any new mineral developments will be difficult to assess at this stage of the process and recommends that the Local Plan includes a requirement for any developer to demonstrate that the impacts of changes to air or water quality, noise, light, dust and hydrology will not significantly affect the integrity of a European site.

Sites of international importance are specifically protected under national legislation and any proposal that would be likely to have a significant effect on a European site, either alone or in combination with other plans or projects, would need to ensure that all impacts can be mitigated. This protection applies to candidate[5] sites as well as those that have already been designated. The Council is aware that a possible Special Protection Area (SPA) is under consideration for part of Nottinghamshire which could therefore become a candidate site. If a Special Protection Area is subsequently identified and sent to the European Commission for designation, the Council will assess the implications of this and what action is necessary to deal with any issues raised. In the meantime the Council will

[4] NATURA 2000 sites are protected habitats for flora and fauna of European importance.
[5] A candidate site is one which has been put forward for designation but not confirmed.

adopt a "risk based" approach, as advised by Natural England, and assess any applications in accordance with the requirements of the Birds Directive. Further screening regarding the effect on European sites may be required for individual proposals at the planning application stage.

Nottinghamshire has an extensive network of sites important for biodiversity and geological interest. Any development not directly connected with the management of any European sites but likely to have a significant effect on them will require a Habitats Regulations Assessment at the planning application stage to ensure that any such effects are mitigated.

At a national level, the County includes a number of SSSIs designated and protected under the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000.

Regional and Local Sites are designated at a local level. They include Sites of Importance for Nature Conservation (SINCs), Regionally Important Geological Sites (RIGs) and Local Nature Reserves (LNR). Ancient woodlands are designated as SINCs within Nottinghamshire and are one of the most diverse habitats for wildlife, being home to more species of conservation concern than any other habitat. These designated sites form part of the country's irreplaceable natural capital and the Minerals Local Plan will contribute towards their protection and encourage and support opportunities for enhancement.

Opportunities to create and improve habitats and the need to view biodiversity enhancement as a cross cutting opportunity in all development will be encouraged and supported. The prevention of fragmentation of existing habitats is key to allow species to respond to the impacts of climate change by making provision for habitat adaptation and species mitigation. Where minerals development adversely affects biodiversity interest, negative impacts should be minimised and mitigation to offset these impacts should be provided.

Species protected by law are protected, principally under the Wildlife and Countryside Act 1981 and the Habitats Regulations Act which support improvements in the population of targeted species. This is reflected locally through the Nottinghamshire Biodiversity Action Plan.

Biodiversity Opportunity Mapping (BOM) and an Area of Multiple Environmental Sensitivity (AMES) study have been carried out for parts of Nottinghamshire along the River Trent to help inform proposals for mineral workings and restoration.

DM5: Landscape character

What you told us at the Issues and Options Stage…

- Responses suggested that developing an approach requiring landscape character to be taken into consideration when assessing individual planning applications was the most appropriate.

Issues and Options Sustainability Appraisal findings:

- There was no clear link between a policy requiring a landscape character assessment to be considered when assessing planning application and many of the Sustainability Appraisal objectives and the impact was uncertain with regard to ensuring adequate provision of minerals and protecting high quality agricultural land.

- The likely impact of this was very positive in relation to protecting and enhancing townscape and landscape (SA objective 5), and positive in terms of protecting the historic environment (SA objective 4) and quality of life (SA objective 14).

Introduction

People value the countryside and its landscape for many different reasons, not all of them related to traditional concepts of aesthetics and beauty. It can provide habitats for wildlife and evidence of how people have lived on the land and harnessed its resources. Landscape has a social and community value, as an important part of people's day-to-day lives. It has an economic value, providing the context for economic activity and often being a central factor in attracting business and tourism.

POLICY DM5: LANDSCAPE CHARACTER

1. Proposals for minerals development will be supported where it can be demonstrated that it will not adversely impact on the character and distinctiveness of the landscape unless there is no available alternative and the need for development outweighs the landscape interest and the harmful impacts can be adequately mitigated;

2. Restoration proposals should take account of the relevant landscape character policy area as set out in the Landscape Character Assessments covering Nottinghamshire and, where appropriate, the Areas of Multiple Environmental Sensitivity Study.

Justification

National Planning Guidance states that valued landscapes should be protected and enhanced, and requires Local Plans to include criteria based policies against which proposals for any development on or affecting landscape areas will be judged.

Landscapes form an important part of the character of Nottinghamshire and have been created from a complex mix of natural and man made influences such as geology, soil, climate and land use. This has given rise to a variety of landscapes that continue to evolve over time. All landscapes hold some value and some have more potential to be improved and restored than others.

Many activities have the potential to change the landscape and in the case of mineral extraction, this can be significant. Mineral workings can destroy landscape character, but their restoration can also help to improve landscapes, especially those which may be of a lower quality.

In order to manage changes to landscape character, three Landscape Character Assessments (LCA) were published in 2009 (Bassetlaw, Newark and Sherwood and Greater Nottingham including Ashfield and Mansfield), these cover the whole of the County. 11 character areas have been identified and each Landscape Character Area has a unique combination of elements and features that make them distinctive:

- Derbyshire and Nottinghamshire Coalfields (DC);
- East Nottinghamshire Sandlands (ES);
- Idle Lowland (IL);
- Leicestershire and Nottinghamshire Wolds (LW);
- Magnesian Limestone (ML);
- Mid Nottinghamshire Farmland (MN);
- Sherwood (SH);
- South Nottinghamshire Farmlands (SN)
- Trent Valley (TV);
- Trent Washlands (TW);
- Vale of Belvoir (VB).

The Trent Washlands is identified as being particularly under pressure from minerals development.

The LCAs identify specific features of the different Landscape Character Areas and this information can then be used to give special protection to the feature or to identify suitable mitigation measures when loss is unavoidable. It is also valuable in the design of restoration schemes.

An Areas of Multiple Environmental Sensitivity Study has been carried out for parts of Nottinghamshire in areas around the River Trent to help inform site allocations, future proposals for mineral workings and restoration schemes. A similar study has also been carried out in Derbyshire (Areas of Multiple Environmental Sensitivity) to inform their future Minerals Local Plan.
To ensure that new minerals development considers existing landscapes and visual impact, a local landscape and visual impact assessment will be required for all proposals to identify potential impacts on the surrounding areas. All landscape proposals for the restoration of minerals sites, such as earthworks, after-use and planting, should reflect the landscape type and character area.

DM6: Historic environment

What you told us at the Issues and Options Stage…

- Comments stated that the issues identified were appropriate and that the most suitable approach to take forward should be a combination of the existing Minerals Local Plan policy and an approach to give weight to new minerals extraction that would help to fill gaps about the county's archaeology.

Issues and Options Sustainability Appraisal findings:

- Both options (Option A: Proportionate response to impacts on historic environment and Option B: Preservation in situ) were considered to have a positive impact in respect of promoting local job opportunities, but in terms of protecting biodiversity, landscape and high quality agricultural land Option A was likely to have a positive impact, whereas Option B had no clear link.
- In respect of protecting the quality of the historic environment (SA objective 4) Option A was likely to have a very positive impact whilst Option B was likely to have a negative impact as the latter would not actually protect the archaeological resource.

Introduction

Nottinghamshire has a rich history and this can be seen in the wide range of historic buildings, settlements, landscapes, parks, gardens and monuments as well archaeological sites and features that contribute to the local identify and sense of place. The Council is committed to protecting, conserving and where opportunities arise, enhancing the historic environment of the County.

POLICY DM6: HISTORIC ENVIRONMENT

1. Proposals for minerals development will be supported where it can be demonstrated that:
   a) The development would protect and where appropriate enhance nationally important historical assets and their settings;
   b) The importance of the development outweighs the significance of any regionally or locally important designated or non-designated heritage assets that would be directly or indirectly affected by the development and where appropriate provision is made for the excavation and recording of any affected archaeological remains;

2. No development shall take place within the archaeological resource area at South Muskham.

Justification

Since minerals can only be worked where they exist, their development can lead to a conflict between the provision of essential mineral resources and the protection of the evidence of the county's past for the benefit of future generations.

National policy states that the most important heritage assets should be conserved, and that balancing the need for development against potential harm to archaeological sites needs to be proportionate.

The Council has a duty to protect, conserve and enhance the significance, character and appearance of the area's historic environment when carrying out its statutory functions and through the planning system.

The historic environment of Nottinghamshire is vast and ranges from major historic and nationally important buildings and grounds to the many thousands of archaeological sites that lie buried underground. The historic environment, by its very nature, is an irreplaceable resource.

There are over 18,000 archaeological sites and historic features in Nottinghamshire currently registered on the County Sites and Monuments Record. It is therefore important to protect and record the most significant assets. While the County has no assets of designated international
importance, particular consideration will be given to Creswell Crags (which straddles the boundary between Nottinghamshire and Derbyshire, and its setting, if Inscribed as a World Heritage Site during the plan period.

Archaeology

The need for preservation in situ of other sites and remains will need to be assessed against their importance and the impact that their loss would have upon the overall archaeological resource in Nottinghamshire. Although the preservation of archaeological sites is a primary objective, it is clearly impracticable to preserve them all. Equally sites should not be destroyed without careful consideration and treatment.

Where preservation in-situ is not feasible, sites need to be surveyed, excavated or otherwise appropriately recorded. These provisions can only be assessed after the archaeological characteristics or proposed development sites have been evaluated. An appropriate scheme of treatment is required to be agreed with the County Council prior to any development taking place.

A recent research project, identified in the Archaeology Background Paper, looking at aggregate resources in Nottinghamshire and the archaeological remains they contain revels that discoveries within mineral workings have yielded a wealth of new information about the Iron Age and Roman periods in the Trent and Idle Valleys.

Archaeological resource area at South Muskham

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 not fully

understood. A field walking programme has been undertaken but further studies are still required to ascertain the effect of losing individual sites or features in this area. As such there will be a presumption against mineral extraction within the South Muskham area for the duration of the Plan period.

Listed Buildings and Conservation Areas

Nottinghamshire's Historic Environment Record holds information on a large number of Listed Buildings and Conservation Areas and sites of local interest. Nottinghamshire also has a number of parks which are listed on the 'Register of Park and Gardens of Special Historic Interest in England' produced by English Heritage and others that are of local interest. Some Nottingham District/Borough Local Planning Authorities have adopted criteria for the identification of 'non-designated heritage assets' and have, or are producing a local list of these.

Some of the impact on the historic environment from mineral extraction may constitute 'less than substantial harm'. Permanent changes to the landscape setting of heritage assets once the site is reclaimed could result in 'substantial harm' to their significance. However, with the use of careful design, considered restoration schemes and, in some cases, compensatory mitigation, it may be possible to accommodate mineral development in the vicinity of designated heritage assets.

The role of Policy DM6 is to ensure that our historic environment is afforded the appropriate level of conservation and enhancement in conformity with national policy. As part of the process of preparing planning applications for new development, assessment should be used by developers to inform the preparation of a mitigation strategy for proposed minerals development.

In cases where it is necessary for an applicant to submit a Heritage Statement and/or Archaeological Evaluation, the scope and degree of detail necessary will vary according to the particular circumstances of each application. The level of detail required should be proportionate to the importance of the heritage asset, the size of the development and the level of its impact on the heritage asset. As a minimum the Nottinghamshire Historic Environment
Records (HER) should be consulted. Where an application site includes, or is considered to have the potential to include, heritage assets with archaeological interest, the Council will require developers to submit an appropriate desk-based assessment and, where desk-based research is insufficient to properly assess the interest, a field evaluation. It is strongly advised that Heritage Statements and Archaeological Evaluations are compiled by a professional consultant or contractor so as to ensure that an appropriate statement is submitted. Applicants are advised to discuss proposals with the Council prior to submitting an application.

DM7: Public access

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to public access.

Issues and Options Sustainability Appraisal findings:

- Options for public access were not specifically assessed in the Sustainability Appraisal.

Introduction

Nottinghamshire is a largely rural county and has nearly 2700km of paths providing access into the countryside for walking, cycling and horse riding. The rights of way network also provides vital links between towns and villages and is increasingly being used as routes to school, work and shops.

The size and location of minerals development can have a significant impact on the rights of way network but it can also provide opportunities to improve and extend existing infrastructure in the countryside.

POLICY DM7: PUBLIC ACCESS

1. Proposals for minerals development will be supported where it can be demonstrated this will not have an unacceptable impact, including that upon the enjoyment of use, on the existing public rights of way network whilst the minerals development is being undertaken.

2. Where this is not practicable, satisfactory proposals for temporary or permanent diversions, which are of at least an equivalent interest or quality, must be agreed in advance of the commencement of the proposal.

3. Improvements and enhancements to the rights of way network will be sought and where possible public access to restored minerals workings will be increased.

Justification

National policy states that policies should protect and enhance public rights of way and access. Opportunities to provide better facilities for users such as adding links to the existing rights of way should be sought. Where appropriate, manned crossing points will be required to ensure that the existing public rights of way network is not compromised. Proposals for new rights of way will need to consider how they can best link into the existing rights of way network.

There are parts of Nottinghamshire that suffer from a poor quality environment and where there is a lack of accessible green space. Therefore efforts to improve public rights of way

and access should be targeted to help address deficiencies as well as providing infrastructure.

Reference should be made to the Nottinghamshire Rights of Way action plan and advice sought from the County Council's rights of way officers regarding temporary or permanent diversions and the opportunities for future improvements in the area.

Consultation with the County Council on any public right of way affected by a proposed minerals development should take place at the earliest possible stage. The statutory process for footpath diversion of closure is separate from the planning process and as such delays or failures to secure any required amendments to the rights of way network could affect the implementation of future minerals development.

Enhancements to the public rights of way network will be secured through a legal agreement rather than planning conditions to ensure that the enhanced rights of way are available in perpetuity.

Did you know?

Minerals are not only used in construction, but also in a range of more surprising products such as cosmetics, drugs and food.

DM8: Cumulative impact

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to cumulative impact.

Issues and Options Sustainability Appraisal findings:

- Options for cumulative impact were not specifically assessed in the Sustainability Appraisal.

Introduction

In some areas of Nottinghamshire the extent of the mineral working may result in a large number of previously worked sites and further applications for extraction. The impacts, both real and perceived, of a concentration of workings close to a community or communities can impact on the quality of life and the wider environment and landscape character.

POLICY DM8: CUMULATIVE IMPACT

1. Proposals for minerals development will be supported where it can be demonstrated that there are no unacceptable cumulative impacts on the environment or on the amenity of a local community, either in relation to the collective effect of different impacts of an individual proposal, or in relation to the effects of a number of developments occurring either concurrently or successively.

Justification

Mineral developments can have significant environmental impacts during their operational phases; for instance, the generation of noise and dust, impacts on the landscape, loss of biodiversity and fragmentation of habitats and HGV transport impacts.

It is important to consider the suitability of allocating land, or of granting planning permission for sites, that would be in close proximity to other minerals sites. National policy emphasises the need for cumulative impacts from multiple impacts from individual sites and or a number of sites in a locality to be taken into account.

The County Council therefore wishes to avoid unacceptable cumulative impacts in any one location, particularly where these affect local access roads. The environmental (especially transport) impacts of quarrying can be significant for local residents, and the cumulative impacts of one or more local quarries can be a cause of serious concerns.

Such issues may come to the fore where two or more different minerals operators have potential and/or actual sites in the same area. It is not a purpose of the planning system to stifle local competition in the production of minerals, but it may nonetheless be necessary

to consider timing and phasing of sites where they could, cumulatively, have unacceptable local impacts.

The National Planning Policy Framework (NPPF) states that Planning Authorities should take into account the cumulative effects of multiple impacts from individual minerals sites and/or a number of sites in a locality. It indicates that proposals for the simultaneous and/or successive working of a number of sites in a wider area of commercially-viable deposits may affect communities and localities over an extended period, depending on the nature, age and size of the site(s).

A stage may be reached whereby it is the cumulative rather than the individual impact of a proposal that renders it environmentally unacceptable.
The plan seeks to ensure that the impacts of a mineral proposal are considered in conjunction with the impacts of other past, present or reasonably foreseeable developments, and that cumulative impact on the environment of an area, or on the amenity of a local community, are fully addressed.

Cumulative impact has been used as a constraint in defining future allocated areas for mineral extraction.

DM9: Highways safety and vehicle movements/routeing

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to highways safety and vehicle movements/routeing.

Issues and Options Sustainability Appraisal findings:

- Options for highways safety and vehicle movements/routeing were not specifically assessed in the Sustainability Appraisal.

Introduction

All new development proposals need to consider the needs of all road users. Safety and vehicular movements are key issues which must be addressed. The needs of pedestrians, cyclists and people with disabilities must be at the forefront of any considerations.

POLICY DM9: HIGHWAYS SAFETY AND VEHICLE MOVEMENTS/ ROUTEING

1. Proposals for minerals development will be supported where it can be demonstrated that:
   a) The highway network can satisfactorily and safely accommodate the vehicle movements, including peaks in vehicle movements, likely to be generated;
   b) The transportation of minerals would not cause unacceptable impact on the environment and disturbance to local amenity;
   c) Where appropriate, adequate vehicle routeing schemes have been put in place to minimise the impact of traffic on local communities;
   d) Measures have been put in place to prevent material such as mud contaminating public highways.

Justification

The vast majority of minerals are transported from quarries to the market via the existing road network due to the flexibility and relatively short distance most minerals are transported. This can cause a significant increase in the level of HGV traffic on the local and wider road networks. It is important that the impact of this traffic is minimised. This can be done through a number of different measures and can include:

- strategic signage for lorry movements;
- sheeting of lorries;
- installation of wheel cleaning facilities;
- highway improvements;
- hours of working / opening;
- traffic regulation orders;
- noise attenuation of reversing bleepers, plant and equipment;
- private haul roads;
- road safety improvements;
- traffic management arrangements, including off peak movements.

The Highways Agency is responsible for the trunk road network which, in Nottinghamshire, includes the M1, A1, A46, A52 and the A543. They provide policy advice on other transport issues concerning their function, including the consideration of planning applications.

Nottinghamshire County Council is the Local Highway Authority and is responsible for the implementation of the Nottinghamshire Local Transport Plan. The County Council, as the Local Highway Authority, will require Transport Statements (TS) and Transport Assessments (TA) and Travel Plans to be submitted with certain proposals. As such, planning applications must accord with current standards and other local guidance. In most instances, applicants will be required to attend a pre-application meeting to discuss the transport issues with officers from the Council.

In some instances developer contributions may be required to enable the Council to undertake necessary transport improvement works within the affected areas.

Lorry routeing can be a major consideration in assessing the acceptability of a mineral development proposal. Whilst a reasonable route may exist, which the mineral operator may well be willing to use, planning controls cannot be used to provide sufficient assurance that any given route will be adhered to. However, an agreement, in principle, regarding routeing between the operator and the County Council could be made, whereby; the mineral operator can offer to provide adequate legally binding assurances.

DM10: Planning Obligations

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to planning obligations.

Issues and Options Sustainability Appraisal findings:

- Options for planning obligations were not specifically assessed in the Sustainability Appraisal.

Introduction

To achieve sustainable development additional infrastructure may be required. The coordinated delivery of adequately funded infrastructure at the right time and in the right place is key to ensuring that local services, facilities and the transport network can cope with any added demand that arises from new minerals development.

POLICY DM10: PLANNING OBLIGATIONS

1. The County Council will seek to negotiate planning obligations as measures for controlling mineral operations and to secure sustainable development objectives which cannot be achieved by the use of planning conditions.

Justification

Planning obligations (also known as Section 106 agreements) are private agreements made between local authorities, developers and landowners which can be attached to a planning permission to make acceptable development which would otherwise be unacceptable in planning terms. The land itself, rather than the person or organisation that develops the land, is bound by a Section 106 Agreement – so this is something any future owners will need to take into account.

The National Planning Policy Framework (2012) provides Government guidance on the use of planning obligations. It contains three tests that planning obligations must meet:

- necessary to make the proposed development acceptable in planning terms;
- directly related to the proposed development;
- fairly and reasonably related in scale and kind to the proposed development.

Local planning authorities must take this guidance into account in their decisions on planning applications and must have good reasons for departing from it.

Planning obligations are used for three purposes:

- **Prescribe** the nature of development;
- **Compensate** for loss or damage created by a development; or
- **Mitigate** a development's impact.

Planning obligations must be directly relevant to the proposed development.

Circumstances where planning obligations may be sought include:

- Provision of off-site works such as highway improvements, landscape treatment and planting;
- Facilitating the preservation by record of archaeological remains;
- Contributing towards the delivery of the Nottinghamshire Local Biodiversity Action Plan targets (where relevant to the site);
- Facilitating payment of monies;
- Providing long-term site management (where third parties are involved);
- Flood risk management schemes.

The nature and scale of obligation requirements from a development will reflect:

- The nature and impact the development has upon strategic, local and on-site needs and requirements;
- Current infrastructure and whether the development can be accommodated by the existing provision;
- How the potential impacts of a development can be mitigated;
- Viability. In considering issues of viability the Council will have regard to the quality and value of a scheme in the context of how the development contributes towards the vision, objectives and policies for the area;

Planning obligation agreements will normally be drafted by the Council. Whether obligations will be "in kind" (where the developer builds or directly provides the infrastructure), by means of financial payments or a combination of both will depend on the nature and circumstances of the infrastructure requirement. The National Planning Policy Framework sets out that development identified in the Local Plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened. It emphasises that developers and landowners should receive a competitive return to enable the development to be delivered.

DM11: Restoration, after-use and after-care

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to restoration, after-use and aftercare.

Issues and Options Sustainability Appraisal findings:

- Options for restoration, after-use and aftercare were not specifically assessed in the Sustainability Appraisal.

Introduction

It is essential that mineral extraction and restoration are properly designed at the planning application stage to ensure that both are technically and economically feasible and that the impacts can be fully assessed.

Note: This policy should be considered along side the strategic policy SP2: biodiversity led restoration.

POLICY DM11: RESTORATION, AFTER-USE AND AFTER-CARE

1. Proposals for minerals development will be supported where it can be demonstrated that the scheme includes details to allow an appropriate phased sequence of extraction, restoration, after-use and after-care which will enable long-term maintenance and enhancement of the environment.

Restoration

2. Where it is impracticable to submit full restoration details at the planning stage proposals should include:
   a) An overall concept plan with sufficient detail to demonstrate that the scheme is feasible in both technical and economic terms; and
   b) Illustrative details of contouring, landscaping and any other relevant information as appropriate.

3. Mineral extraction proposals which rely on the importation of waste for restoration must:
   a) Include satisfactory evidence that the waste will be available over an appropriate timescale in the types and quantities assumed;
   b) Provide the optimum reclamation solution; and
   c) Provide evidence that it is not practical to re-use or recycle the waste.

After-use

4. Where proposals for the after use includes habitat creation, applicants will be required to demonstrate how they contribute to the delivery of the Nottinghamshire Local Biodiversity Action Plan and have regard to the biodiversity led restoration strategy.

5. Where proposals for the after use is agricultural, applicants will be required to make provision for the retention or replacement of soils and any necessary drainage, access, hedges and fences.

6. The after-use will be required to have regard to the wider context of the site, in terms of the character of the surrounding landscape and historic environment and existing land uses in the area.

7. Where opportunities arise, after-use proposals should provide benefits to the local and wider community which may include enhancement and creation of biodiversity and geodiversity interests, linking of site restoration to other green infrastructure initiatives, enhanced landscape character, improved public access, employment, tourism or provision of climate change mitigation measures.

Aftercare

8. Restoration proposals will be subject to a minimum five year period of aftercare. Where proposals or elements of proposals, such as features of biodiversity interest, require a longer period of management the proposal will only be permitted if it includes details the period of extended aftercare and how this will be achieved.

Justification

National policy requires local planning authorities to ensure that worked land is reclaimed at the earliest opportunity and that high quality restoration and aftercare takes place.

Although mineral working is a temporary land use, worked sites which are not appropriately restored can result in permanent adverse impacts on the environment. It is essential that the detailed restoration proposals for minerals development are properly considered at the application stage to minimise impacts and ensure long term benefits are secured.

The overall restoration proposal also establishes the long-term potential of the land for a wide range of after-uses that can benefit the local and/or wider community. The phasing of operations to achieve restoration at the earliest opportunity is an important factor influencing the acceptability of minerals extraction to local residents.

Achieving high quality restoration must be integral to any proposals for minerals development.

The Council's Biodiversity Led Restoration Strategy is based on the biodiversity opportunities in Nottinghamshire which assist in maximising the potential value of minerals

restoration by carefully planning which habitats can be created, and where. The restoration process will be required to ensure that the priority habitats identified in the Nottinghamshire Biodiversity Action Plan are created or enhanced, where appropriate.

Most mineral workings coincide with agricultural land. In general where the best and most versatile land is taken for mineral extraction, it is imperative that the potential for land to be restored to an agricultural after-use be maintained through appropriate landform and soil profiles.

The Landscape Character Assessment's covering Nottinghamshire identifies specific features of the different Landscape Character Areas within the County. This information can then be used to assist in the designing of restoration schemes.

Proposals for minerals development should be accompanied by a restoration scheme that provides comprehensive details of the order and timing of phases of mineral working, restoration and of the final main after uses. Where possible the proposed scheme should incorporate some element of flexibility to take account of changing circumstances during the life of the development and beyond. It should aim to integrate and facilitate the delivery of any relevant mitigation measures, as identified in assessments undertaken to support the planning application. It is strongly advised that these matters are discussed with the Mineral Planning Authority at the pre-application stage, and where possible involve input from relevant key stakeholders to resolve any potential conflicts of interest.

Soils must be adequately protected and maintained throughout the life of the development, particularly if a site comprises land that qualifies as best and most versatile agricultural land (see Policy DM3: Agricultural land and soil quality). Where necessary, proposals for minerals development should be supported by a site specific Land Classification Survey, undertaken by an independent expert to determine the grading and agricultural value of the proposed site. The survey should incorporate a report/statement of physical characteristics, providing detailed information about the soils, subsoils and overburden within the boundaries of the site. Where the proposed after use is to be one which requires little or no soil, e.g. a lake or a nature reserve requiring impoverished soil resources, it would be better for soils to be removed from site and used beneficially elsewhere.

In some cases, materials (such as inert waste) will need to be imported to ensure that the site can be restored and returned to a beneficial after-use. Phased restoration of a site may require an adequate and timely supply of suitable material in order to ensure that the development can proceed on schedule. However, inert fill material may not necessarily be available in the required quantities and timescales, since the introduction and application of Landfill Tax has reduced the amount of inert material available. In addition, Government encourages the recycling and use of construction and demolition waste as an alternative to primary aggregates. Developers will be required to demonstrate that materials to be imported for restoration purposes are both suitable (based on the advice of the Environment Agency) and are available in sufficient quantity and when needed to achieve the proposed restoration scheme.

Minerals development will be expected to contribute, where appropriate, to the green and blue infrastructure (strategic networks of well-planned, multi-functional spaces) of

Nottinghamshire, particularly through the restoration and after-use of minerals development sites.

After the mineral has been extracted and the stripped soils returned, the aftercare period is the time when the site is prepared for the agreed after-use. Aftercare can include the processes of cultivating, fertilising, planting, draining and otherwise treating the land. The minerals operator is normally still responsible for the site at this time. An appropriate period of aftercare is needed to ensure mineral sites are restored to a standard suitable for their intended after-use.

Different after-uses may require different periods of aftercare. The statutory after-care period is 5 years, but some uses such as nature conservation may benefit from an aftercare period of up to 20 years or more, whilst agriculture may only need a 5 year aftercare period. Where possible and where appropriate, voluntary extended after-care periods will be negotiated for those uses that would benefit from such longer periods.

It is important that management responsibilities are identified and agreed between the developer and those taking on the aftercare of the site to ensure that the proposed after-use can and will be delivered. Developers will be encouraged to enter into planning agreements to ensure that the appropriate aftercare provisions remain in effect for the required aftercare period.

All restoration proposals should take into account the relevant District/Borough Local Plans and where appropriate contribute to the delivery of those Plans. Minerals developers will also be encouraged to involve local communities and parish councils when considering options for restoration and aftercare.

Image courtesy of
John Smith / Notts. Wildlife Trust/nbs

Image courtesy of
Tarmac Limited

DM12: Airfield safeguarding (bird strike)

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to airport safeguarding.

Issues and Options Sustainability Appraisal findings:

- Options for airfield safeguarding were not specifically assessed in the Sustainability Appraisal.

Introduction

Mineral extraction sites that are restored to open water can increase bird-strike risk if they are planned near airfields. This can generate conflict between the minerals industry and safeguarding authorities. To help resolve this potential conflict, it would be useful to predict how new restorations affect local water-bird populations so that mineral deposits can be exploited and restored in safeguarded zones without compromising flight safety.

Airfield Safeguarding Areas are designated within 13km (8 miles) of an airfield, where the owner or operator of civil or military aerodromes are required to be consulted and where restoration is proposed through landfill or to a wetland habitat in order to consider the potential bird strike hazard.

POLICY DM12: AIRFIELD SAFEGUARDING (BIRD STRIKE)

1. Proposals for minerals development within the following Airfield Safeguarding Areas will be supported where the applicant can demonstrate that the proposed extraction, restoration and after use will not constitute a hazard to air traffic:

   a) East Midlands Airport;
   b) Gamston (Retford) Airport;
   c) Hucknall Aerodrome;
   d) Netherthorpe Airfield;
   e) Nottingham City Airport;
   f) Robin Hood Airport Doncaster Sheffield;

   g) RAF Scampton MoD Aerodrome;
   h) RAF Syerston MoD Aerodrome;
   i) RAF Waddington MoD Aerodrome.

   Any new safeguarding area notified to the Council during the Plan period will also be safeguarded.

2. All proposals within the safeguarding zones will be required to consult the relevant airfields.

Justification

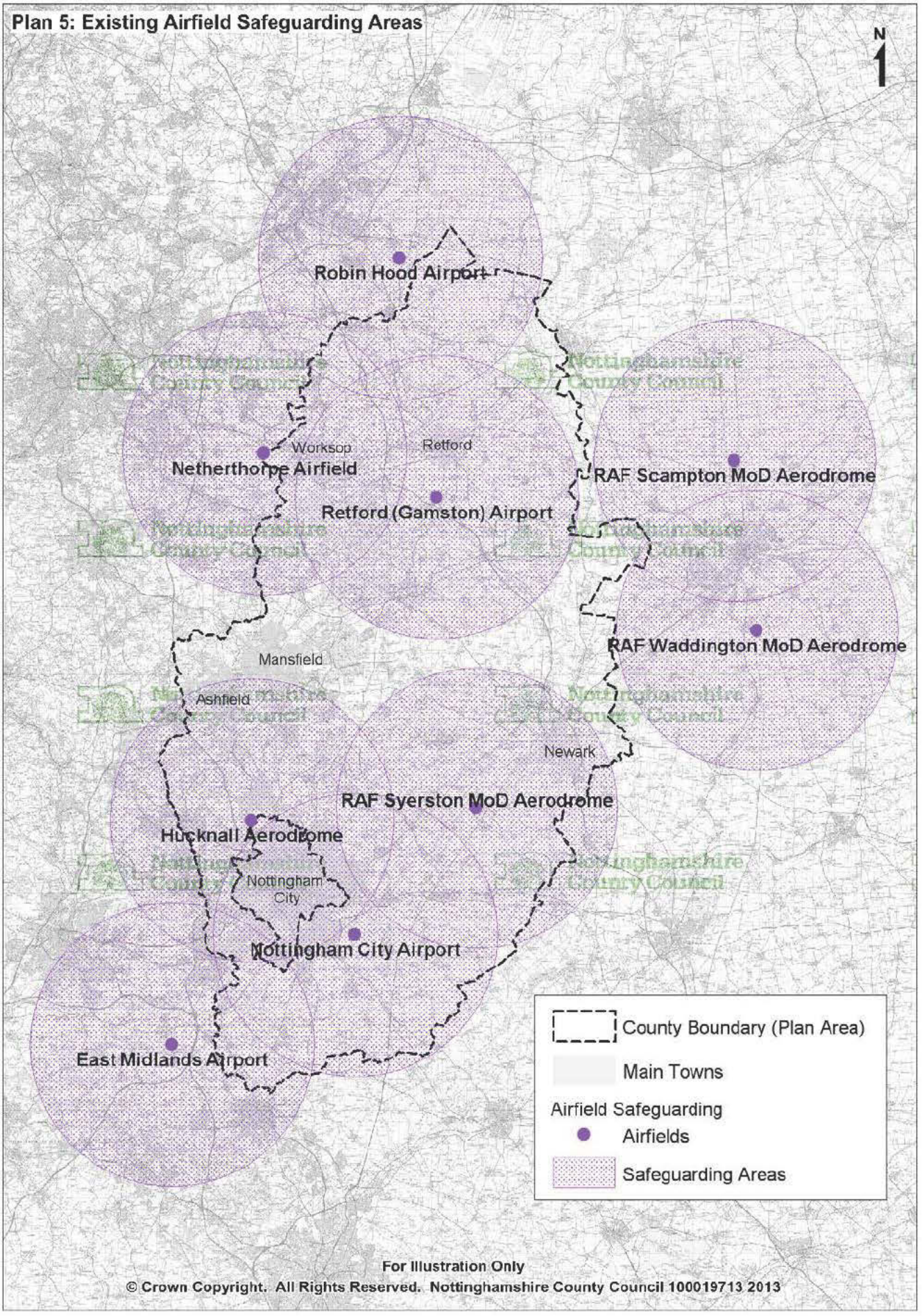
Advice Notes on the safeguarding of aerodromes have been produced by the Airport Operators' Association and General Aviation Awareness Council. The purpose of safeguarding is to ensure that the operation and development of civil and military airfields is not inhibited by development that has the potential to increase the number of birds and the 'birdstrike' risk.

The National Planning Policy Framework (NPPF) states that Local Planning Authorities should put in place policies to ensure worked land is reclaimed at the earliest opportunity, taking account of aviation safety.

Paragraph 144 (bullet point 3) of the NPPF states that Local Planning Authorities should ensure, in granting planning permission for mineral development, that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality;

Restoration of minerals sites which enhance biodiversity through the creation of wetland habitat may lead to the creation of habitats that attract birds. In the vicinity of an airport this is potentially very dangerous. Careful planning can ensure that it will be possible to enhance biodiversity in this way without possibly contributing to a bird-strike hazard. Examples include the creation of reed beds, instead of open water, which generally do not attract the flocking birds that present a bird strike hazard, and also the use of smaller expanses of water, such as fragmented ponds.

There are nine safeguarded airfield areas within Nottinghamshire and these are identified on Plan 5.


Plan 5: Existing Airfield Safeguarding Areas
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Robin Hood Airport
Worksop
Retford
Netherthorpe Airfield
Retford (Gamston) Airport
RAF Scampton MoD Aerodrome
RAF Waddington MoD Aerodrome
Mansfield
Ashfield
Newark
RAF Syerston MoD Aerodrome
Hucknall Aerodrome
Nottingham City
Nottingham City Airport
East Midlands Airport
County Boundary (Plan Area)
Main Towns
Airfield Safeguarding
Airfields
Safeguarding Areas
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DM13: Mineral Safeguarding and Consultation Areas

What you told us at the Issues and Options Stage…

- There was a very limited repose to this issue with no overall conclusions.

Issues and Options Sustainability Appraisal findings:

- The option assessed was 'Safeguard the economically viable resource'. This option had no significant effect on, or no clear link to, most of the Sustainability Appraisal (SA) objectives. However, the likely impact was positive in terms of ensuring adequate provision of minerals and promoting more efficient use of land and resources.

Introduction

Minerals can only be worked where they are found. In the plan area, potential mineral working areas may be limited by landscape and environmental designations or existing settlements; there may also be competition from non-minerals development. Government policy requires proven mineral resources to be safeguarded from sterilisation (such as being covered by buildings) and that there should, where practicable be prior extraction of the mineral if it proves necessary for built development to take place.

POLICY DM13: MINERAL SAFEGUARDING AND CONSULTATION AREAS

Safeguarding Areas

1. Economically important mineral resources will be safeguarded from unnecessary sterilisation by non-mineral development through the designation of minerals safeguarding areas as identified on the Policies Map.

2. Development within minerals safeguarding areas will have to demonstrate that proven mineral resources of economic importance will not be unnecessarily sterilised as a result of the development and that the development would not pose a serious hindrance to future extraction in the vicinity.

3. Where this cannot be demonstrated, and where there is a clear and demonstrable need for the non-minerals development, prior extraction will be sought where practicable.

Consultation Areas

4. District and Borough Councils within Nottinghamshire will consult the County Council as Minerals Planning Authority on proposals for non-minerals development within the designated Mineral Consultation Area, as shown on the Policies Map.

5. The Minerals Planning Authority will resist inappropriate development within the Mineral Consultation Areas.

Justification

The Mineral Safeguarding Areas (MSA) identify the mineral resources which are worthy of safeguarding and the Minerals Consultation Area (MCA) identify the areas within Nottinghamshire where the district and borough authorities are required to consult the Mineral Planning Authority over non-minerals development. The NPPF encourages the prior extraction of minerals before alternative uses are permitted. In Nottinghamshire the safeguarding and consultation areas are identical and as such one map has been produced and is included on the Minerals Policies Map.

The mineral safeguarding approach does not seek to predict how much mineral is likely to be needed over the plan period but safeguards the viable mineral resource. Viability will change over time. With increasing scarcity, resources that are currently considered non-viable will become increasingly viable. However, the entire mineral resource is not safeguarded; it is only the most meaningful and best current estimate of viable resources which has been safeguarded for future assessment and possible use. See Plan 6 below.

For the purposes of safeguarding, Nottinghamshire has eight distinct mineral resources. These are:

- Alluvial Sand and Gravel;
- Glaciofluvial Sand and Gravel;
- Sherwood Sandstone;
- Magnesian Limestone;
- Mercia Mudstone (brick clay);
- Gypsum;
- Coal; and
- Hydrocarbons (oil and gas)

Not every non-mineral development proposal within or close to a Minerals Safeguarding and Consultation Area represents a risk to future minerals extraction. The main risks will arise from proposals to extend built up areas and new development in the open countryside, as such; the following categories of development are exempt from both consultation and safeguarding:

- Development which is in accordance with adopted District/Borough Local Plan allocations which took account of minerals sterilisation and where prior extraction is not feasible or appropriate;
- Temporary development;
- Householder planning applications (except for new dwellings);

- All applications for advertisements;
- Infill development;
- Reserved matters; and
- Prior notifications (telecoms, forestry, agriculture, demolition).

The British Geological Survey Resource Map (2011) provides information on the County's resources but excludes minerals that can only be worked by underground methods, such as deep mined coal, oil and gas and some gypsum deposits.

It is expected that the developer will carry out the necessary site investigations to prove the mineral resource. These will take into account factors such as the availability of the mineral, its relative scarcity, the timescale for the development going ahead, the possible extraction of the mineral and the viability of such extraction.

Identification of mineral safeguarding areas does not provide a presumption in favour of working the mineral, and is not a guarantee that there is mineral present of viable quantity or quality. The Minerals Safeguarding and Consultation Area are identified on the Minerals Policies Map and reflected in each Nottinghamshire District/Borough Adopted Local Plan Policies Maps.

More details on safeguarding can be found in the Nottinghamshire Mineral Safeguarding Background Paper.

Plan 6: Mineral Safeguarding and Consultation Areas

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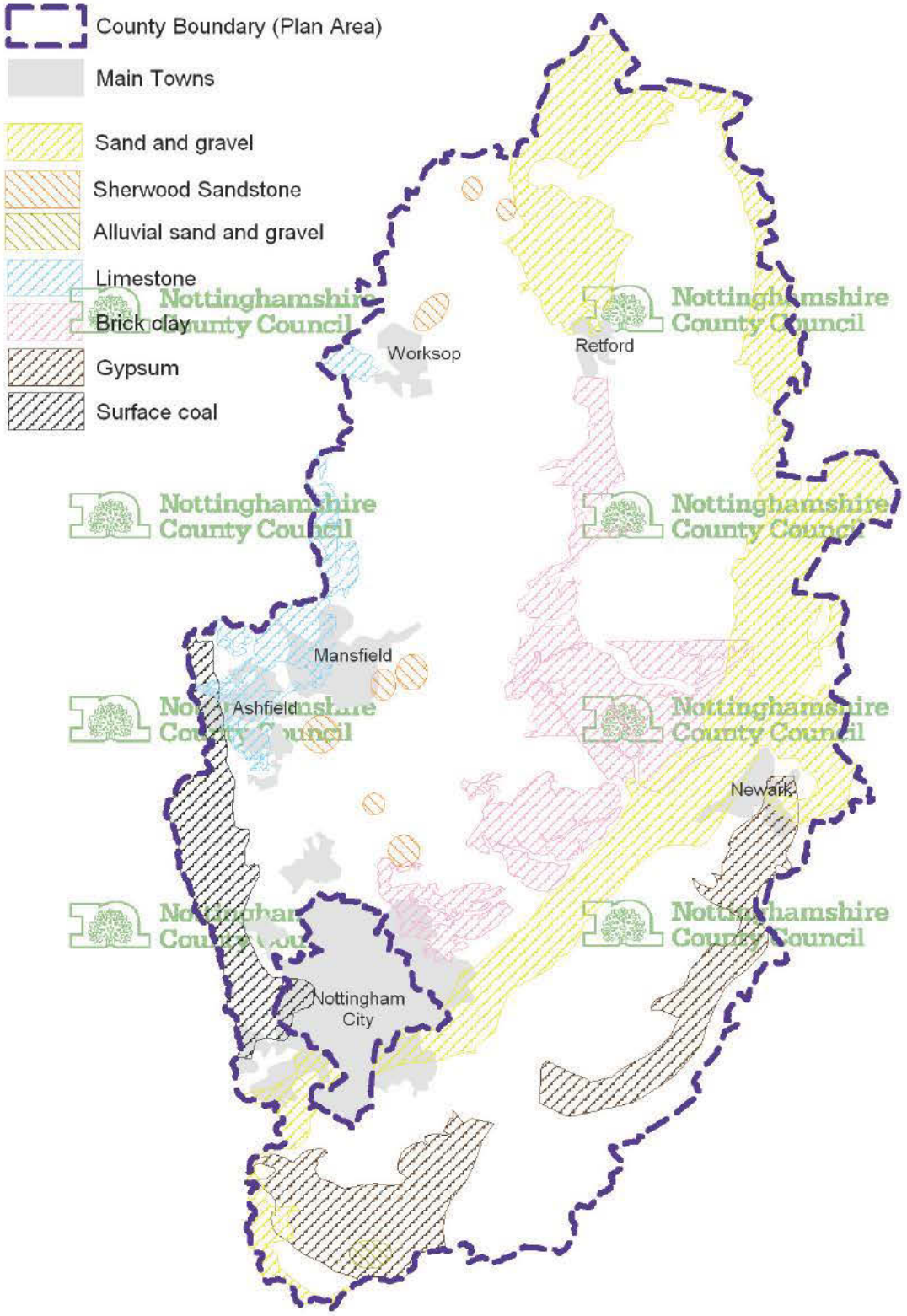

British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003

DM14: Incidental mineral extraction

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to incidental mineral extraction.

Issues and Options Sustainability Appraisal findings:

- Options for incidental mineral extraction were not specifically assessed in the Sustainability Appraisal.

Introduction

In principle, recovering minerals as an incidental element of another development proposal promotes sustainable development by helping to conserve mineral resources that might otherwise be lost.

POLICY DM14: INCIDENTAL MINERAL EXTRACTION

1. Planning applications for the extraction of minerals as a necessary element of other development proposal on the same site will be supported where it can be demonstrated that the scale and duration of the mineral extraction does not result in adverse environmental impacts and that it brings environmental and other planning benefits to the development it is incidental to.

2. Where planning permission is granted, conditions will be imposed to ensure that the site can be adequately restored to a satisfactory after-use should the main development be delayed or not implemented.

Justification

District/Borough Councils within Nottinghamshire should advise the County Council on proposals, such as ornamental lakes and major built development, which involve the excavation and removal of significant quantities of soils, overburden and mineral. Failure to do so may result in planning permission being granted without taking into account potential mineral planning issues. Developers submitting proposals to District/Borough Councils are likewise encouraged to consult the County Council at the pre-application stage where they expect incidental minerals extraction to be necessary.

In many cases the planning application for the main development may be determined by the District/Borough Council, and, except where quantities are very small, the mineral extraction may need to take the form of a separate planning application to be determined by the County Council. In these cases, in order to ensure that both proposals are compatible, it is important to consider both planning applications at the same time. Interim reclamation proposals must be included to ensure that the primary development proposals are not delayed, or fail to be implemented.

Incidental mineral extraction is not precisely defined in terms of quantity of mineral worked or duration. It does not, however, apply to minerals development simply because it is small scale and short term. If mineral extraction is a significant reason for justifying or promoting the development, the proposal will need to be assessed against the relevant policies applicable to the mineral being worked.

Did you know?

On average we extract nearly 6 million tonnes of mineral in Nottinghamshire every year. Some of this will be transported out of the country to meet national and regional demands.

DM15: Irrigation lagoons

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to irrigation lagoons.

Issues and Options Sustainability Appraisal findings:

- Options for irrigation lagoons were not specifically assessed in the Sustainability Appraisal.

Introduction

Proposals to construct irrigation lagoons within agricultural land typically involve the extraction of around 30 - 50,000 tonnes of mineral in order to create a pond of about 1 hectare in extent. The mineral is usually taken offsite for processing at a nearby quarry. Whilst the development comprises little more than mineral extraction, providing there is evidence that there are genuine agricultural benefits then the mineral extraction can normally be regarded as incidental.

POLICY DM15: IRRIGATION LAGOONS

1. Proposals for mineral extraction to create irrigation lagoons will be supported where:
   a) There is satisfactory evidence that they will provide significant benefits to agricultural productivity;
   b) They can be worked and reclaimed without any unacceptable environmental impacts;
   c) The irrigation lagoon is landscaped and treated to maximise its potential for enhancing the landscape character and/or biodiversity.

Justification

The development of irrigation lagoons is often classed as 'permitted development' and would not require planning permission unless the mineral is taken off-site.

Sand and gravel deposits are technically very suited for this purpose because of the normally high water table level and relatively rapid recharge after the water is abstracted for irrigation. The cost of creating the lagoon is also likely to be offset by the value of the mineral. The main planning issues will generally comprise traffic during construction, the impact on archaeological sites, and the long term landscape impact of the lagoon. Wildlife impact is less likely to be an issue, as these lagoons tend to take place within arable fields.

Whilst the purpose of these lagoons is to provide irrigation, it is important that they are shaped and landscaped to blend in with and, where possible, enhance the landscape character of the area, including biodiversity. The standard rectangular reservoir should be avoided, as this will generally detract from the area.

DM16: Borrow pits

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to borrow pits.

Issues and Options Sustainability Appraisal findings:

- Options for borrow pits were not specifically assessed in the Sustainability Appraisal.

Introduction

The term 'borrow pit' is applied to a temporary mineral working supplying material for use solely in a specific construction project, particularly roads.
Borrow pits are typically located next to the construction site, and in the ideal situation are soon backfilled with waste materials, such as soft clay, that often have to be removed from the construction area – hence the material excavated is 'borrowed'. Normally, large quantities of material, mainly bulk fill, are required over a short time.

POLICY DM16: BORROW PITS

1. Proposals for borrow pits will be supported where:
   a) They are adjacent to or close to the project/s they are intended to serve
   b) They are time limited to the life of the project and material is to be used only for the specified project;
   c) There are overriding environmental or other planning benefits compared to obtaining materials from alternative sources;
   d) Alternative materials of the required specification are unavailable in sufficient quantities;
   e) Proposals provide for appropriate restoration measures which include full use of surplus spoil from the project.

Justification

With the exception of small borrow pits developed within the boundary of the construction sites including highways and rail, planning permission is required. Proposals for borrow pits will be treated in the same way as any other mineral extraction scheme. This means that borrow pits must be justified in terms of being the most suitable source of material to meet demand, and that appropriate environmental safeguards covering both working and reclamation are included

Advance planning is essential to ensure that the borrow pit can be developed within the timescales required. For example, if archaeological remains are present these may require a full and lengthy investigation before any mineral can be extracted. Submitting proposals after contracts are let is unlikely to allow sufficient time to resolve such complications.

Urgency of need cannot be an overriding factor in the treatment of archaeological remains and other similar environmental factors.

It is important to ensure that borrow pits only supply the construction project intended. Therefore in granting planning permission for borrow pits, the County Council will take appropriate measures to control access and routeing, and permission will be time limited to the life of the construction project.

In considering 'need', the quantities and specifications of materials required for the construction project will be assessed in the context of the level and location of existing permitted reserves. Minerals won from borrow pits contribute to the County's aggregate requirements and may help to avoid the use of better quality reserves from established quarries.

In general, it should usually be possible to meet requirements from local established quarries or from waste materials and the use of secondary aggregates. In such circumstances borrow pits can normally only be justified where they offer clear environmental gains over alternative sources of supply.
For example, where borrow pits are adjacent to construction sites the most obvious environmental benefits will be the avoidance of heavy traffic on public highways. There will also be significant economic and energy savings because of the reduced haulage costs.

These short term gains could be offset if the borrow pit is not properly reclaimed, or it is inappropriately located. For example, a water area adjacent to a major highway may have limited recreational potential because of access problems and/ or traffic noise. Where possible infilling with waste material from the construction project will normally be the preferred option.

DM17: Associated industrial development

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to associated industrial development.

Issues and Options Sustainability Appraisal findings:

- Options for associated industrial development were not specifically assessed in the Sustainability Appraisal.

Introduction

The Town and Country Planning (General Permitted Development) (Amendment) (England) Order 2013 allows certain types of industrial development associated with minerals activities to be located within mineral workings, subject to the prior approval from the Minerals Planning Authority.

POLICY DM17: ASSOCIATED INDUSTRIAL DEVELOPMENT

1. Proposals for associated industrial development on or adjacent to mineral extraction sites will be required to demonstrate that they are clearly related to and linked to the life of the site.

Justification

Associated Industrial Development broadly comprises industrial processes which largely depend on the mineral worked from the related mine or quarry, such as ready mixed concrete plants associated with sand and gravel quarries. Various criteria relating to the height and appearance of buildings and structures and other restrictions may apply. All other industrial development associated with the mine and quarry will require planning permission in the normal way.

Proposals for industrial development that fall outside the scope of the General Permitted Development Order (GPDO) will only be permitted where it can be shown that there are clear overall environmental advantages in a close link between the industrial and extractive operations. Particular regard will be given to environmental and transport implications, and the likely duration of working.
The continued use of such industrial development following exhaustion of the mineral reserve means it will become dependent upon the import of raw materials. This usually involves significant movements of heavy goods vehicles and will therefore normally be resisted.

Any planning permission for associated industrial development will be time limited to expire on the cessation of working from the associated extraction area.

DM18: Mineral exploration

What you told us at the Issues and Options Stage…

- The issues and options consultation did not set out options relating to exploration.

Issues and Options Sustainability Appraisal findings:

- Options for exploration were not specifically assessed in the Sustainability Appraisal.

Introduction

Exploration is essential to prove the existence and extent of mineral resources. Prior to development, it is necessary to ensure that a resource is economically viable and to determine how it can be worked. Although exploration is a temporary activity, safeguards may still be needed to minimise its environmental impact.

POLICY DM18: MINERAL EXPLORATION

1. Proposals for mineral exploration will be permitted, subject to satisfactory environmental, amenity and restoration safeguards.

Justification

There are three main methods of mineral exploration; geophysical surveys, trial pits and boreholes:

Geophysical surveys

Seismic surveys are the most common type of geophysical survey, especially in the exploration of coal and oil. Whilst these surveys can provide useful information about the underlying geological structure, they do not prove the existence of mineral resources.

The procedure is to initiate a shock wave into the ground, the pulse from which is detected by instruments called seismometers. The resulting signals are then translated into a seismograph which can be interpreted to reveal rock structures.

These surveys are carried out using a variety of methods such as vibrator pads, dynamite in shallow boreholes, land airguns and hydraulic rams.

Most Seismic surveys have little environmental impact. However, noise and vibration can raise concerns when carried out in sensitive areas. This is especially the case when explosives are used and/or where surveys are carried out over a prolonged period. A particular concern is the interference to archaeological remains. Operators are encouraged to contact the County Council's archaeologists prior to undertaking surveys.

Most seismic surveys have permitted development rights but there are several exceptions relating to sensitive areas, proximity to buildings, size of the explosive charge and the

duration of operations. In these cases, planning permission is required. In any event, operators are encouraged to notify local residents at an early stage, prior to surveys being carried out to allay concerns and unnecessary fears.

Trial pits and shallow boreholes

Trial pits and shallow boreholes are methods of surface mineral exploration which obtain data on the depth, extent and quality of the mineral, the make-up of overburden and hydrological data. Shallow boreholes use small rigs that are capable of sinking a number of boreholes in a day. Trial pits are mostly used in assessing shallow deposits, in particular sand and gravel. After the information is recorded the pits are backfilled and reinstated.

As with geophysical surveys, concerns are often raised regarding the impact that digging shallow pits may have on the archaeology, however, these pits can provide an ideal opportunity to evaluate the site's archaeology at an early stage and developers are encouraged to involve archaeologists during this exploration phase.

Due to the short duration of these operations, it is very rare that the Minerals Planning Authority will have to be notified, or planning permission be obtained. However, exceptions to this include operations in close proximity to buildings and operations in environmentally sensitive areas. There are also limits on the intensity of drilling, the use of explosives and the heights of rigs. Operations are encouraged to consult the County Council where there are doubts over the planning situation.

Deep boreholes

In Nottinghamshire deep boreholes, which may be sunk to depths of over 1,000 metres are used mainly in the exploration of coal and oil. A typical exploration site covers half a hectare and rigs can be up to 40 metres high. Drilling may occur 24 hours a day for several months.

A hard base, normally comprising crushed limestone, is required for the drilling rig and associated equipment. Supporting equipment includes mud pits, pipe racks, pumps and cabins. The environmental implications of deep borehole drilling are therefore much greater than those for the other exploration methods noted above.

The main considerations associated with deep boreholes include visual impact, noise, access, water pollution and directional drilling.

CHAPTER 6: IMPLEMENTATION AND MONITORING

Implementation

The National Planning Policy Framework (NPPF) requires local planning authorities to monitor their local plans, to ensure that the policies and proposals within them are deliverable and will be subject to review. To allow this to happen the Nottinghamshire Minerals Local Plan Preferred Approach contains a number of strategic objectives that will be implemented and the policies stemming from these will be monitored and any issues identified will be addressed through future revision of the local plan.

The policies set out in the Local Plan will be primarily implemented through the development management process; planning applications, compliance on monitoring of minerals development and unauthorised mineral development, and the NPPF.

Monitoring is important in facilitating the delivery of sustainable minerals development, the County will monitor all minerals development granted by the authority and will use appropriate compliance measures, such as regular site visits and enforcement action, to ensure all permitted minerals development comply with the terms of their planning permissions.

The minerals Preferred Approach identifies the provision of aggregate minerals supply that is needed to meet demand during the plan period; 2015-2030. It makes separate provision for secondary and recycled aggregates, brick clay, gypsum, silica sand, industrial dolomite, building stone, coal and hydrocarbons.

The Preferred Approach contains overarching strategic policies mineral provision policies and development management policies, all of which have been developed to ensure that the overall approach is delivered in an environmentally sustainable way.

Monitoring

The Planning and Compulsory Purchase Act 2004 requires the production of an Annual Monitoring Report (AMR). The AMR covers both minerals and waste development.

The County produces an AMR each December and the purpose of the report is to review:

- Progress in preparing the new planning policy documents that will make up the development framework;
- How well existing minerals and waste planning policies are working;
- New national or other relevant policy guidance that needs to be taken into account;
- Updates in local social, economic and environmental indicators that may influence existing and future minerals and waste policies.

Alongside the AMR a requirement to prepare a Local Aggregates Assessment (LAA) was introduced through the publication of the National Planning Policy Framework in March 2012.

The LAA sets out:

- Summaries of past aggregate production, number of active quarries and the distribution of the extracted mineral.

- Future apportionment levels based on the NPPF 10 year average figure and comparison to past apportionment figures.

- The key issues that could affect the future demand for aggregates over the next plan period.

More detailed guidance on LAAs was published by the Department for Communities and Local Government (DCLG) in October 2012 and adds the requirement to produce a 3 year average production figure in order to monitor future demand.

Nottinghamshire County Council will work with the minerals industry and other mineral planning authorities, including through the East Midlands Aggregates Working Party to monitor sales, distribution and reserves of aggregate minerals and changes in patterns of supply to inform future forecasting and demand.

Observations recorded in the AMR and LAA will feed into reviews of the Minerals Local Plan, and if the strategy is not delivering or is indeed over delivering minerals an early review of the local plan maybe necessary.

Appendix 5 contains a detailed monitoring and implementation table which sets out the policies, performance indicators and triggers for monitoring.

GLOSSARY

Aftercare: Action necessary to bring restored land up to the required standard for an agreed after-use such as agriculture, forestry or amenity.

Air Quality Management Area (AQMA): A designation made by a local authority where an assessment of air quality results in the need to devise an action plan to improve quality of air.

Amenity: Something considered necessary to live comfortably.

Ancient Woodland: Woodland that is believed to have existed from at least medieval times.

Archaeology and Historic Buildings Record (AHBR): An index to the known archaeological sites and finds, historic buildings, designed and historic landscapes, parks and gardens and industrial monuments in the county.

Area of Outstanding Natural Beauty (AONB): Areas of countryside considered to have significant landscape value, and protected to preserve that value. Originally identified and designated by the Countryside Commission under Sections 87 and 88 of the National Parks and Access to the Countryside Act 1949. Natural England is now responsible for designating AONBs and advising Government and other organisations on their management and upkeep.

Best and most versatile agricultural land (BMV): The Agricultural Land Classification (ALC) provides a method for assessing the quality of farmland to enable informed choices to be made about its future use in the planning system. It helps underpin the principles of sustainable development. The ALC system classifies land into five grades, with Grade 3 subdivided into 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a by policy guidance (see PPS7). This is the land which is most flexible, productive and efficient in response to inputs and which can best deliver future crops for food and non-food uses such as biomass or fibres and developers. Where significant development of agricultural land is unavoidable, poorer quality land should be used in preference to that of higher quality, except where this would be inconsistent with other sustainability considerations. Government policy is set out in Planning Policy Statement 7 (PPS7) Sustainable Development in Rural Areas published in August2004 (paragraphs 28 and 29).

Biodiversity Action Plan (BAP): Is a plan which addresses threatened species and habitats and is designed to protect and restore biological systems.

Biodiversity Opportunity Area (BOA): Specific geographical areas with the best opportunity to restore and create habitats of regional importance. They are defined entirely on the basis of identifying those areas where conservation action is likely to have the most benefit for biodiversity based on existing biodiversity interest and opportunities for enhancement. The purpose of BOAs is to guide support for land management as they represent those areas where assistance for land management and habitat restoration would have particular benefit.

Bird strike: Risk of aircraft collision with birds, which are often attracted to landfill sites containing organic waste.

BREEAM Standards: (Building Research Establishment Environmental Assessment Method) a design and assessment method for sustainable buildings.

Brownfield: Land which has been previously developed.

Carbon dioxide (CO2): The most important greenhouse gas produced by human activities.

Climate change: The significant and lasting change in the statistical distribution of weather patterns over periods ranging from decades to millions of years.

Co-location: The placement of several activities in a single location.

Community Infrastructure Levy (CIL): A new charge which local authorities in England and Wales will be empowered, but not required, to charge on most types of new development in their area. CIL charges will be based on simple formulae which relate the size of the charge to the size and character of the development paying it. The proceeds of the levy will be spent on local and sub-regional infrastructure to support the development of the area.

Community Strategy: Community Strategies outline the local community's wishes and priorities, they can be used as a tool to ensure local government and other services meet local needs.

Conservation Areas: Designated areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance.

Core Strategy: The Hampshire Minerals and Waste Core Strategy was adopted in 2007. The strategy included an 'over-arching' strategic approach to development. It was produced jointly by Hampshire County Council, Portsmouth and Southampton City Councils and the New Forest National Park Authority.

Countryside: Areas that are not urbanised.

Cumulative impact: Impacts that accumulate over time, from one or more sources, and can result in the degradation of important resources.

Curtilage: A legal term describing the enclosed area of land around a dwelling. It is distinct from the dwelling by virtue of lacking a roof, but distinct from the area outside the enclosure in that it is enclosed within a wall or barrier of some sort.

Development Plan Document (DPD): Spatial planning documents which are subject to independent examination, at which those making representations have a right to be heard.

Development Scheme: A project plan for the development of statutory and other planning documents.

Draft National Planning Policy Framework (dNPPF): The emerging national planning policy framework. This was issued in draft, for consultation in July 2011.

Dormant sites: A site where planning permission for mineral extraction was granted and implemented prior to, and on or subsequent to, the 1 July 1948 and respectively, at which no mineral working has been carried out to any substantial extent. It is unlawful to carry out mineral working on a dormant site until full modern planning conditions have been approved by the relevant Minerals Planning Authority.

Energy security: An association between national security and the availability of natural resources for energy consumption.

Environment Agency (EA): A public organisation with the responsibility for protecting and improving the environment in England and Wales. Its functions include the regulation of industrial processes, the maintenance of flood defences and water resources, water quality and the improvement of wildlife habitats.

Environmental Impact Assessment (EIA): Systematic investigation and assessment of the likely effects of a proposed development, to be taken into account in the decision-making process under the Town and Country Planning (Environment Impact Assessment) (England and Wales) Regulations 1999. The process is undertaken for a proposed development that would significantly affect the environment because of its siting, design, size or scale.

Flood Risk Zones (FRZ): Defined geographical areas with different levels of flood-risk. Flood-risk zones are defined by the Environment Agency. Planning Policy on development in flood risk areas is covered in Planning Policy Statement 25.

Gardens of Special Historic Interest: Gardens which appear on English Heritage's Register of Historic Parks and Gardens.

Greenbelt: An area designated in planning documents such as Structure Plans, providing an area of permanent separation between urban areas. The main aim of green belt policy is to prevent urban sprawl by keeping land permanently open; the most important quality of green belts is their openness.

Green economy: An economy which is low carbon, resource efficient and socially inclusive.

Greenhouse gas (GHG): Gases resulting from various processes which, when emitted into the atmosphere, trap heat from the sun causing rises in global temperatures – a process often referred to as the greenhouse effect.

Green waste: Compostable garden waste.

Groundwater Source Protection Zones (GPZ): Geographical areas, defined by the Environment Agency, used to protect sources of groundwater abstraction.

Habitats Regulation Assessment (HRA): Statutory requirement for Planning Authorities to assess the potential effects of land-use plans on designated European Sites in Great

Britain. The Habitats Regulations Assessment is intended to assess the potential effects of a development plan on one or more European Sites (collectively termed 'Natura 2000' sites). The Natura 2000 sites comprise Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). SPAs are classified under the European Council Directive on the conservation of wild birds (79/409/EEC; Birds Directive) for the protection of wild birds and their habitats (including particularly rare and vulnerable species listed in Annex 1 of the Birds Directive, and migratory species).

Health and Safety Executive (HSE): The national independent watchdog for work-related health, safety and illness.

Health Impact Assessments: An assessment of the impacts of policies, plans and projects on health in diverse economic sectors using quantitative, qualitative and participatory techniques.

Heavy goods vehicles (HGV): A vehicle that is over 3,500kg unladen weight and used for carrying goods.

Highways Authority: The organisation responsible for the administration of public roads.

Historic Environment Record (HER): A public record of all aspects of the historic environment of the county.

Infrastructure Planning Commission (IPC): The independent body that examines applications for nationally significant infrastructure projects until April 2012.

Joint Baseline Report: Outlines the baseline information on the main sustainability issues for Hampshire and supports the Sustainability Appraisal.

Land bank: A measure of the stock of planning permissions in an area, showing the amount of un-exploited mineral, with planning permissions, and how long those supplies will last at the locally apportioned rate of supply.

Landscape character: A combination of factors such as topography, vegetation pattern, land use and cultural associations that combine to create a distinct, recognisable character.

Land-won aggregates / **minerals:** Mineral/aggregate excavated from the land.

Listed Buildings and Sites: Buildings and sites protected under the Planning (Listed Buildings and Conservation Areas) Act 1990.

Local Flood Risk Management Strategy (LFRM): A statutory plan detailing the strategy for local flood-risk management.

Local Nature Reserves (LNR): A statutory designation made (by principal local authorities) under Section 21 of the National Parks and Access to the Countryside Act 1949. They are places of local, but not necessarily national, wildlife or geological importance and also often have good public access and facilities. Local Nature Reserves

are almost always owned by local authorities, who often pass the management of the Local Nature Reserves onto County Wildlife trusts.

Local Transport Plan (LTP): A statutory plan detailing the future transport approach in a given area.

Managed Aggregate Supply System (MASS): A system of addressing the spatial imbalances in supply and demand, used by government to secure adequate and steady supplies of minerals needed by society and the economy without irreversible damage, within the limits set by the environment and assessed through sustainability appraisals.

Material considerations: A material consideration in the UK is a process in Planning Law in which the decision maker, when assessing an application for development, must consider in deciding the outcome of an application.

Ministry of Defence (MoD): The Government department responsible for implementation of the government defence policy and the headquarters of UK armed forces.

Minerals Consultation Area (MCA): An area identified to ensure consultation between the relevant district or borough planning authority, the minerals industry and the Minerals and Waste Planning Authorities before certain non-mineral planning applications made within the area are determined. The Nottinghamshire Mineral Consultation Area covers the same areas as the Mineral Safeguarding Area.

Minerals Policy Statements: National guidance on minerals planning issues, slowly replacing the previous Mineral Planning Guidance Notes.

Mineral Safeguarding Area (MSA): The MSA is defined by minerals and waste planning authorities. They include viable resources of aggregates and are defined so that proven resources of aggregates are not sterilised by non-mineral development. The MSA does not provide a presumption for these resources to be worked.

National Nature Reserve (NNR): A nationally important biological or geological site declared by Natural England and managed through ownership, leasehold or a nature reserve agreement.

National Register of Parks and Gardens: The English Heritage register of historic parks and gardens of national importance.

Natura 2000 sites: Designated land including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) and Ramsar sites.

Permitted capacity: Mineral reserves with planning permission for future extraction.

Permitted development rights: Permitted development rights grant automatic planning permission to proposals for development that is a physical operation, or a material change of use, or both.

Planning Policy Statements (PPS): National planning policy guidance PPS12 on developing local development frameworks and PPS25 on development and flood risk.

Primary Route Network (PRN): A network of regionally significant highways, or routes for longer distance travel.

Proposals Map: A map on an Ordnance Survey base showing spatial application of appropriate policies from the Development Plan.

Rail depot: A railway facility where trains regularly stop to load or unload passengers or freight (goods). It generally consists of a platform and building next to the tracks providing related services.

Ramsar Sites (Wetlands of International Importance)**:** Sites of international importance for waterfowl protected under the Ramsar Convention of the Conservation of Wetlands of International Importance, ratified by the UK Government in 1976.

Regionally Important Geological Sites (RIGS): Regionally Important Geological and Geomorphological Sites (RIGS), designated by locally developed criteria, are currently the most important sites for geology and geomorphology outside statutorily protected land, such as Sites of Special Scientific Interest (SSSI).

Regional Spatial Strategy (RSS): Prepared by the regional body, the RSS sets out policies in relation to the development and use of land in the region (The South East Plan was adopted in 2007 but Government policy is to remove this part of the development plan).

Renewable energy: Energy which comes from natural resources such as sunlight, wind, rain, tides and geothermal heat, which are naturally replenished.

Restoration: The process of returning a site to its former use, or restoring it to a condition that will support an agreed after-use, such as agriculture or forestry.

Rights of Way (RoW): Paths which the public have a legally protected right to use.

Safeguarding: The method of protecting needed facilities or mineral resources and of preventing inappropriate development from affecting it. Usually, where sites are threatened, the course of action would be to object to the proposal or negotiate an acceptable resolution.

Scheduled Ancient Monument (SAM): Nationally important archaeological sites included in the Schedule of Ancient Monuments maintained by the Secretary of State under the Ancient Monuments and Archaeological Areas Act 1979.

Secondary aggregate: Materials that do not meet primary aggregate (e.g. sand/gravel and crushed rock) specifications but which can be used instead of them. Secondary aggregates are by-products of other processes, including the production of primary aggregates.

Section 106 agreement (S106): The Town and Country Planning Act 1990 allows a local planning authority (LPA) to enter into a legally-binding agreement or planning obligation with a landowner when granting planning permission. The obligation is termed a Section

106 Agreement. These agreements are a way of dealing with matters that are necessary to make a development acceptable in planning terms. They are increasingly used to support the provision of services and infrastructure, such as highways, recreational facilities, education, health and affordable housing.

Section 278 agreement (S278): A legal agreement between developers or other interested parties and the Local Authority for changes and improvements to highways.

Sensitive Human Receptors: Locations where people live, sleep, work or visit that may be sensitive to the impact of minerals and waste activity on health, well-being and quality of life. Examples include houses, hospitals and schools.

Sharp sand and gravel: Coarse sand and gravel suitable for use in making concrete.

Sites: Other than the usual meaning, specific sites are identified for minerals and waste activities in the Plan where there are viable opportunities, have the support of landowners and are likely to be acceptable in planning terms.

Sites of Importance for Nature Conservation (SINC): A local designation conferred on an area of particular interest in Nottinghamshire for its biodiversity by the Nottinghamshire Biodiversity Information Centre according to criteria agreed with Natural England and the Hampshire Wildlife Trust. These sites may be designated for a range of ecological interests and may be of national importance.

Site of Special Scientific Interest (SSSI): A national designation for an area of special interest because of its flora, fauna, or geological or physiographical features, selected by Natural England and notified under Section 28 of the Wildlife and Countryside Act 1981.

Sites and Monuments Record (SMR): The National Trust Sites and Monuments Record (NTSMR) is a resource and repository of information about the archaeology and historic landscapes under National Trust care.

Soft sand: Fine sand suitable for use in such products as mortar, asphalt and plaster.

Source Protection Zone (SPZ): Geographical areas defined by the Environment Agency and used to protect sources of groundwater abstraction.

Special Area of Conservation (SAC): Areas which have been given special protection under the European Union's Habitats Directive. They provide increased protection to a variety of wild animals, plants and habitats and are a vital part of global efforts to conserve the world's biodiversity.

Special Protection Area (SPA): An area of importance for the habitats of certain rare or vulnerable categories of birds or for regularly occurring migratory bird species, required to be designated for protection by member states under the European Community Directive on the Conservation of Wild Birds (79/409/EC).

Statement of Community Involvement (SCI): A Local Development Document which sets out the standards the Planning Authority intend to achieve when involving the community in preparing Local Development Documents, or when making a significant

development control decision. It also sets out how the Authority intends to achieve these standards. A consultation statement must be produced showing how the Authority has complied with its SCI.

Sterilisation: When a change of use, or the development, of land prevents possible mineral exploitation in the foreseeable future.

Strategic Environmental Assessment (SEA): A system of incorporating environmental considerations into policies, plans, programmes and part of European Union Policy. It is sometimes referred to as strategic environmental impact assessment. Strategic Environmental Assessment (SEA) is intended to highlight environmental issues during decision-making about strategic documents such as plans, programmes and strategies. The SEA identifies the
significant environmental effects that are likely to result from implementing the plan or alternative approaches to the plan.

Strategic Flood Risk Assessment (SFRA): An assessment of the potential flood risk such as from groundwater and fluvial flood risk, undertaken at the appropriate level (county or district).

Strategic Route Network (SRN): The National Primary Route Network in the county and other roads designated by the County Council as being of more than local importance in Nottinghamshire.

Sustainability Appraisal (SA): In United Kingdom planning law, an appraisal of the economic, environmental, and social effects of a plan from the outset of the preparation process, to allow decisions that are compatible with sustainable development. *Since 2001, sustainability appraisals have had to conform to the EU directive on Strategic Environmental Assessment (SEA)*.

Sustainable Development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable Drainage Systems (SDS): A sequence of water-management practices and facilities designed to drain surface water in a more suitable way than the conventional practice of routing run-off through a pipe to a watercourse.

Time-limited development: Development which has a time limit imposed when the development must be completed.

Townscape: The appearance of a town or city; an urban scene.

Urban Areas: An area characterised by higher population density and vast human features in comparison to areas surrounding it. Urban areas may be cities, towns or conurbations.

Use Classes: The Town and Country Planning (Use Classes) Order 1987 (as amended) puts uses of land and buildings into various categories known as Use Classes. This includes B1 (Business), B2 (General Industrial) and B8 (Storage or Distribution).

APPENDIX 1: INFORMATION REQUIRED IN SUPPORT OF PLANNING APPLICATIONS

Sufficient information will be required to enable a balanced assessment of all relevant factors. Such information may include:

a) present use of the site;
b) geology;
c) estimated mineral content, output and life of workings;
d) quality of material;
e) need for the mineral;
f) measures taken to maximise the potential for re-use and recycling of materials on site;
g) method of extraction with depth, direction and phasing of working;
h) surface drainage and hydrogeology;
i) layout and design of buildings and operational areas (including haul roads);
j) soil survey and soil conservation measures;
k) transport arrangements (including access, traffic generation and routeing);
l) hours of operation;
m) employment;
n) measures to minimise pollution and environmental disturbance;
o) impact on existing and adjacent land uses;
p) assessment of the landscape and ecological value of the area and the potential impact of the development;
q) assessment of archaeological remains and historic features and measures for their preservation and recording;
r) impact on public rights of way;
s) an overall scheme of restoration;
t) landscaping measures and boundary treatment of the site;
u) integrated working and reclamation scheme;
v) aftercare;
w) after-use;
x) long term management provisions.

APPENDIX 2: DELIVERY SCHEDULE

Sand and gravel

Allocation number	Site	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	END
SGa	Misson west	15	15	15	15	15	15	15													2019
SGb	Newington	200	200	200	200	200	100	100													2017
MP2m	Barnby Moor							100	200	200	200	200	100								2023
SGc	Finningley	400	400	400																	2015
MP2a	Finningley Extension				400	400	400	400													2019
SGd	Sturton Le Steeple							500	500	500	500	500	500	500	500	500	500	500	500	500	2037
MP2n	Botany Bay								200	200	200	200	200	200	200	200	200	200	200	200	2031
SGe	Bawtry Road	80	80	80																	2015
MP2b	Bawtry Road North				40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	2033
SGf	Scrooby	40	40	40	40	40	40														2018
MP2c	Scrooby North							80	80	80	80	80	80	80	80						2026
MP2b	Scrooby Nouth															80	80	80	80	80	2031
SGg	Cromwell				250	250	250	250	250	250	250	250	250	250	250	250					2027
MP2l	Cromwell South																200	200	200	200	2041
MP2o	Coddington												250	500	500	500	500	500	500	500	2040
SGh	Besthorpe	300	300	300	300	300	300														2018
MP2e	Besthorpe East							300	300	300	300	300	300	300	300	300					2027
MP2f	Besthorpe South																300	300	300	300	2036
SGi	Girton	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450					2027
MP2g	Girton West																330				2028

SGj	Langford	500	500	500	500	500																2017
MP2h	Langford South						500	500	500	500	500	500	500	500	500	500	500					2028
MP2i	Landford North																	500	500	500		2031
SGk	East Leake	180	180	180	180	180																2017
MP2k	East Leake East						180	180	180	180	180	180	180	180	180	180	180	180	180			2030
MP2j	East Leake North																			180		2034
	TOTAL	2.24	2.14	2.14	2.37	1.97	1.97	2.91	2.70	2.70	2.70	2.70	2.85	3.00	3.00	3.00	2.83	2.50	2.50	2.50	48.75	
	APPORTIONMENT	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	49.02	

Sherwood Sandstone

Allocation number	Site	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	END
SSa	Rufford	50	50	50																	2015
SSb	Burntstump	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	2038
SSc	Bestwood 2	150	150	150	150	150	150	150	150	150											2021
MP3b	Bestwood 2 east										250	250	250	250	250	250	250	250	250	250	2031
SSd	Carlton Forest	25	25	25																	2015
MP3c	Carlton Forest north				50	50	50	50	50	50	50	50	50	50	50	50	50				2035
SSe	Scrooby Top	120	120	120	120	120	120														
MP3d	Scrooby Top north							120	120	120	120	120	120	120	120	120	120	120	120	120	
SSf	Serlby	25	25																		
	TOTAL	495	495	420	420	420	420	420	420	420	470	470	470	470	470	470	470	470	470	470	8630
	APPORTIONMENT	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	8740

NB: All figures are in 1,000 tonnes.

Existing permitted sites | Proposed extensions or new sites

Did you know?

Over the plan period sand and gravel extraction in Nottinghamshire. will use up to 800 hectares of land - the equivalent of **1500 football pitches** the size of Wembley.

APPENDIX 3: SITE ALLOCATION DEVELOPMENT BRIEFS

MP2a – Finningley Extension

Grid reference: 469066, 398482
District: Bassetlaw District Council
Parish: Misson Parish Council
Area: 32 ha (east area 25.5 ha, west area 6.4ha)
Total mineral resource: 725,000 tonnes

Quarry restoration
Restoration should be to agricultural land to preserve the best and most versatile land, but also include a biodiversity-led element. Target restoration in this regard will depend on landform, 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

- 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

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

MP2b – Bawtry Road North

Grid reference: 467589, 395160
District: Bassetlaw District Council
Parish: Misson Parish Council
Area: 16 ha
Total mineral resource: 824,000 tonnes

Quarry restoration
Target restoration will depend on landform, 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 restoration at Bawtry Road North.

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

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

MP2c – Scrooby North

Grid reference: 465400, 389809
District: Bassetlaw District Council
Parish: Scrooby Parish Council
Area: 12.12 ha
Total mineral resource: 622,000 tonnes

Quarry restoration
Restoration should include agricultural and biodiversity-led elements. Target restoration will depend on landform, 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 3

Environmental and cultural designations

- Mitigation against any impact on the Scrooby sand pits to ensure no overall loss to biodiversity interest in the area
- 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

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

MP2d – Scrooby South

Grid reference: 465749, 388835
District: Bassetlaw District Council
Parish: Scrooby Parish Council
Area: 8.76 ha
Total mineral resource: 425,000 tonnes

Quarry restoration
Restoration should include agricultural and biodiversity-led elements. Target restoration will depend on landform, 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 3

Environmental and cultural designations

- Mitigation against any impact on the Scrooby sand pits to ensure no overall loss to biodiversity interest in the area
- 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 (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

MP2e – Besthorpe East

Grid reference: 482294, 363202
District: Newark and Sherwood District Council
Parish: Collingham Parish Council
Area: 33.8 ha
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, 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 site's proximity to reedbeds at Langford Lowfields and Meering, Reedbed would be an appropriate habitat at this location.

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
- Wet-working would ensure no impact on Besthorpe Meadow SSSI
- Indirect impact on the nearby valuable cluster of SINCs 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

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
- 9m stand off from watercourse that forms the eastern boundary

MP2f – Besthorpe South

Grid reference: 481227, 362227
District: Newark and Sherwood District Council
Parish: Collingham Parish Council
Area: 63.48 ha
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, 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, it would therefore be appropriate to seek to expand this area by creating extensive reedbed habitat within the Besthorpe South site.

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).

Given the proximity of southern end of the site to the River Trent, this area should prioritise the opportunity for floodplain reconnection and channel rebraiding which could bring both ecological and sustainable flood management benefits.

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 SINCs and SSSIs around Besthorpe and Collingham and protection of Horse Pool SINC and the nearby Conservation Area of Collingham and its listed buildings must be considered
- 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
- 9m stand off from watercourse that flows from the site in a northerly direction

MP2g – Girton West

Grid reference: 482108, 368750
District: Newark and Sherwood District Council
Parish: Girton Parish Council
Area: 13.2 ha
Total mineral resource: 330,000 tonnes

Quarry restoration
Target restoration will depend on landform, 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 western side of the site to the River Trent, an additional consideration is the opportunity for floodplain reconnection in this area, which would bring ecological and sustainable flood management benefits. This area is also subject to a multiple environmental sensitivity hotspot for ecology, heritage and landscape (as per the Trent Valley Areas of Multiple Environmental Sensitivity Project) and so the impact of restoration on these features is particularly important in this area.

Location

- West of Spalford and south of South Clifton
- See Policies Map Inset 11

Environmental and cultural designations

- Protect and enhance Old Trent Oxbow SINC and Spalford Warren SSSI
- High archaeological potential to be managed, possibly through use of strip, map and sample method
- 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 (SGi – Girton)

Amenity

- Minimise disruption to Girton Restricted Byway 1. Restoration provides potential to link this byway to the riverside path South Clifton FP1
- Provide screening to users of 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.

MP2h – Langford South

Grid reference: 481150, 359663
District: Newark and Sherwood District Council
Parish: Holme Parish Council
Area: 70.5 ha
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, 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, it would therefore be appropriate to seek to expand this area by creating extensive Reedbed habitat within the Langford Lowfields South site.

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 area, where the site contains 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

- Protection of the Scheduled Ancient Monument on the site and the impact on nearby 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
- 9m stand off from watercourses that form the western, northern and eastern boundaries of the site

MP2i – Langford North

Grid reference: 481811, 361325
District: Newark and Sherwood District Council
Parish: Collingham Parish Council
Area: 29.6 ha
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, 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, it would therefore be appropriate to seek to expand this area by creating extensive Reedbed habitat within the Langford Lowfields North site.

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 and 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

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
- 9m stand off from watercourse along the southern boundary

MP2j – East Leake North

Grid reference: 456639, 325219
District: Rushcliffe Borough Council
Parish: Costock Parish Council
Area: 15 ha
Total mineral resource: Approximately 750,000 – 1 million tonnes

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Quarry restoration
Restoration should include agricultural and biodiversity-led elements. Target restoration will depend on landform, 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

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

MP2k – East Leake East

Grid reference: 457187, 324743
District: Rushcliffe Borough Council
Parish: Rempstone Parish Council
Area: 52 ha
Total mineral resource: 2.2 million tonnes

Quarry restoration
Restoration should include agricultural and biodiversity-led elements. Target restoration will depend on landform, 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

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

MP2l – Cromwell South

Grid reference: 480401, 361237
District: Newark and Sherwood District Council
Parish: Cromwell and North Muskham Parish Councils
Area: 52ha
Total mineral resource: Estimated 2.9 million tonnes

Quarry restoration
Target restoration will depend on landform, 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. It should be noted that the site is adjacent to Langford Lowfields which lies east of the Trent, and as such a restoration involving the creation of a substantial area of reedbed would be highly desirable. 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 and scheduled ancient monument to south east and the setting of the listed buildings at Cromwell must 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 existing 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

Water and flooding

- 9m stand off from the watercourse adjacent to the south western boundary of the site

MP2m – Barnby Moor

Grid reference: 466445, 385271
District: Bassetlaw District Council
Parish: Barnby Moor Parish Council
Area: 45.1 ha
Total mineral resource: 1.1 million tonnes

Quarry restoration

Restoration should include agricultural and biodiversity-led elements. Target restoration will depend on landform, 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 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 and indirect impact on the nearby cluster of SINCs 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

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
- 9m stand off from watercourse that runs through the site from south to north

MP2n – Botany Bay

Grid reference: 467375, 383389
District: Basetlaw District Council
Parish: Barnby Moor, Sutton and Babworth Parish Councils
Area: 114.3 ha
Total mineral resource: 2.5 million tonnes

Quarry restoration
Restoration should include agricultural and biodiversity-led elements. Target restoration will depend on landform, 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

- 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 consdiered
- 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 screening to processing plant to centre of site
- 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
- 9m stand off from watercourse that crosses the site

MP2o - Coddington

Grid reference: 484298, 355605
District: Newark and Sherwood District Council
Parish: Langford and Coddington Parish Council
Area: 126 ha
Total mineral resource: 9.5 million tonnes

Quarry restoration

Restoration of this site should be at least in part biodiversity-led as it has the potential to provide new areas of healthland 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, 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
- Augment planting to A17 to southern boundary of site

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 and Drove Lane

Amenity

- Screening of processing plant

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

MP3a – Bestwood 2 East

Grid reference: 457333, 352598
District: Gedling Borough Council
Parish: Ravenshead Parish Council
Area: 5.7 ha
Total mineral resource: 2.2 million tonnes

Quarry restoration

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

- Lowland Dry Acid Grassland
- Lowland Heathland
- Marsh and Swamp
- Ponds
- 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. Heathland/ Acid Grassland habitats should be priorities for creation; however, Oak-birch Woodland creation may be required to mitigate against the loss of exiting woodland from within Longdale Plantation (SINC/LWS 2/363).

Location

- South of Ravenshead
- See Policies Map Inset 18

Environmental and cultural designations

- The restoration scheme would have to demonstrate that the loss of the SINC could be outweighed by the greater than County need for the development and that high quality habitat, at least equal to that which would be lost, could be established and maintained in the long term
- Indirect impact on the setting of various Scheduled Ancient Monuments, registered parks and gardens, conservation areas and listed buildings (associated with Papplewick Pumping Station, Newstead Abbey and Papplewick Hall) 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

Access and transport

- Access on to public highway as per existing site (SSc – Bestwood 2)

Amenity

- Potential to create right of way links through restoration

MP3b – Carlton Forest North

Grid reference: 459894, 382508
District: Bassetlaw District Council
Parish: Carlton in Lindrick Parish Council
Area: 12.2 ha
Total mineral resource: 550,000 tonnes (or up to 882,000 tonnes if inert waste is imported for restoration)

Quarry restoration
Restoration should include agricultural and biodiversity-led elements. Restoration should be to agricultural land to preserve the best and most versatile land, but also include a biodiversity-led element. Target restoration will depend on landform, and substrate characteristics. However, priority habitats could include:Lowland Dry Acid Grassland

- Lowland Heathland
- Marsh and Swamp
- Ponds
- 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 of Worksop
- See Policies Map Inset 4

Environmental and cultural designations

- Impact on adjacent SINC, listed buildings at Wigthorpe and the Scheduled Ancient Monument and on areas known to be used by breeding woodlark and nightjars potentially must be considered
- Protect mature tree vegetation to the east of Red Lane
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Create' – actions should create new features or areas where existing elements are lost or are in poor condition

Access and transport

- Access on to public highway as per existing site (SSd – Carlton Forest)

Amenity

- Potential for improvements to right of way routes through restoration, particularly to link the minor roads close to the air museum through to Stapleford Wood in an east-west direction
- Provide screening to views from the north by planting along Red Lane on northern edge of site

MP3c – Scrooby Top North

Grid reference: 464999, 389528
District: Bassetlaw District Council
Parish: Scrooby Parish Council
Area: 20.69 ha
Total mineral resource: 4 million tonnes

Quarry restoration

Restoration should include agricultural and biodiversity-led elements. Target restoration will depend on landform, and substrate characteristics. However, priority habitats could include:

- Lowland Dry Acid Grassland
- Lowland Heathland
- 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 3

Environmental and cultural designations

- Impacts on ecological interest of Scrooby Sand Pits must be considered
- High archaeological potential to be managed, to be achieved in part through open excavation of known settlement on site
- Protect and retain character of existing Green Land (Scrooby BW4) to north and north west of the site.
- Retain existing woodland strips to western edge of site which provide screening from A638 and plant additional mixed species hedgerow to north, east and southern boundaries of the site
- 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 (SSe – Scrooby Top)

MP6a – Kirton West

Grid reference: 469363, 368900
District: Newark and Sherwood District Council
Parish: Kirton Parish Council
Area: 20.5 ha
Total mineral resource: 2.5 million m^3

Quarry restoration
Restoration of this site should be an extension of the approved restoration concept for the existing area. Target restoration will depend on landform, and substrate characteristics. However, priority habitats could include:

- Lowland Neutral Grassland
- Marsh and Swamp
- 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

- East of Kirton village
- See Policies Map Inset 10

Environmental and cultural designations

- Protection of the significance and setting of the Kirton Conservation Area and listed buildings in the settlement, including the listed Church of Holy Trinity must be considered
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve' – actions should encourage the conservation of distinctive features and features in good condition

Access and transport

- Access on to public highway as per existing site (BCa – Kirton)

Amenity

- Ensure continued protection of visual impacts for Kirton village through maintenance of ridgeline
- Augment screening to residential property 'Hedgelands' and provide screening to Egmanton Road

MP6b – Dorket Head East

Grid reference: 460383, 346768
District: Gedling Borough Council
Parish: n/a
Area: 11.7 ha
Total mineral resource: 720,000 m^3

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

- Lowland Neutral Grassland
- Marsh and Swamp
- 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

- North east of Arnold
- See Policies Map Inset 20

Environmental and cultural designations

- Impact on woodland to southern boundary during extraction must be considered
- Boundary hedgerows to be retained
- Consideration of Landscape Character Assessment, Policy Zone recommendation: 'Conserve' – actions should encourage the conservation of distinctive features and features in good condition

Access and transport

- Access on to public highway as per existing site (BCb – Dorket Head)

Amenity

- Minimise loss of amenity value from existing footpaths
- Health and safety in the diversion of existing rights of way must be considered

MP9a - Holbeck

Grid reference: 453711, 375512
District: Bassetlaw District Council
Parish: Holbeck Parish Council
Area: 35.58 ha
Total mineral resource: 14 million tonnes (10 million tonnes of industrial dolomite and 4 million tonnes of aggregate limestone)

Quarry restoration
Restoration should include agricultural and biodiversity-led elements. Target restoration will depend on landform, and substrate characteristics. However, priority habitats could include:

- Lowland Calcareous Grassland
- Marsh and Swamp
- Ponds
- 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. Given the site's location, the creation of Lowland Calcareous Grassland is a priority, as opportunities for the creation of extensive areas of this habitat are very limited.

Location

- South east of Creswell village and north west of Holbeck village
- See Policies Map Inset 8

Environmental and cultural designations

- Impact on and relationship to Creswell Craggs to be fully considered, use of a buffer zone may be appropriate
- Protection of Welbeck Abbey Estate and its setting must be considered
- Restoration should include proposals for the restoration of the existing hedged lanes on the site
- Retain existing woodland as screening belts
- 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 the public highway off the A616 Creswell Road

Amenity

- Protection of Restricted Byway No.5 that runs through the site. Due to its considerable heritage value and the route of surrounding paths (namely Holbeck Footpath 2) this right of way and landscape feature is not suitable for rerouting
- Extend eastern screening belt southwards to screen possible views from property in Holbeck

APPENDIX 4: POLICIES MAP

Preferred Approach
Policies Map **Oct 2013**

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

Airfield Safeguarding (DM12)

Airfields

Safeguarding Areas

Sites

Permitted Sites (MP2-4, 6-8 and 10)

New Sites and Extensions (MP2,3,6 and 9)

Archaeological Resource Area (DM6)

Site Codes

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

Insets - additional features

Permitted Sites (MP2-4, 6-8 and 10)

New Sites and Extensions (MP2,3,6 and 9)

Archaeological Resource Area (DM6)

Environmental Designations

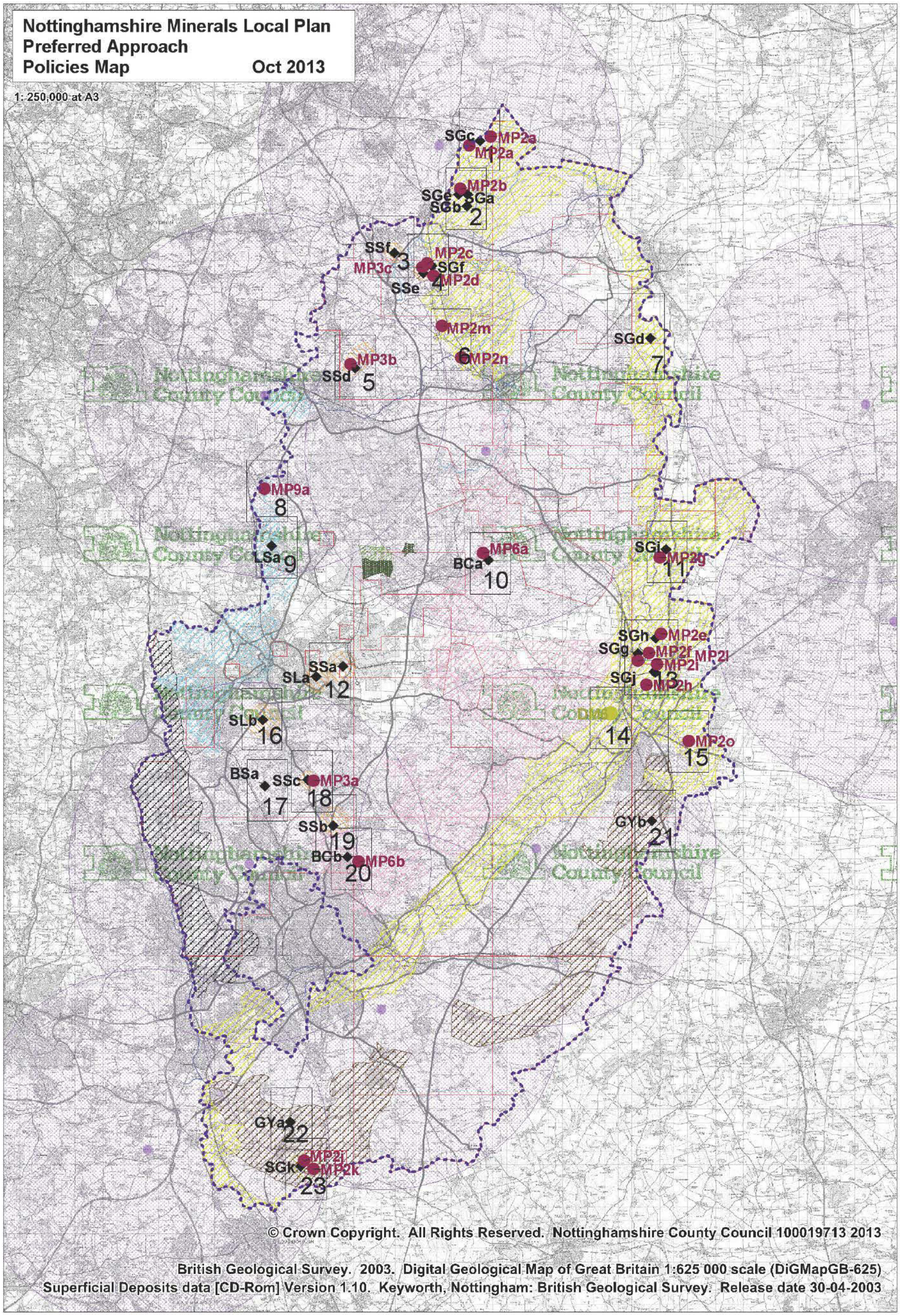
Site of Special Scientific Interest (SSSI)

SINC Geo

SINC Bio

Nottinghamshire Minerals Local Plan
Preferred Approach
Policies Map Oct 2013

1: 250,000 at A3



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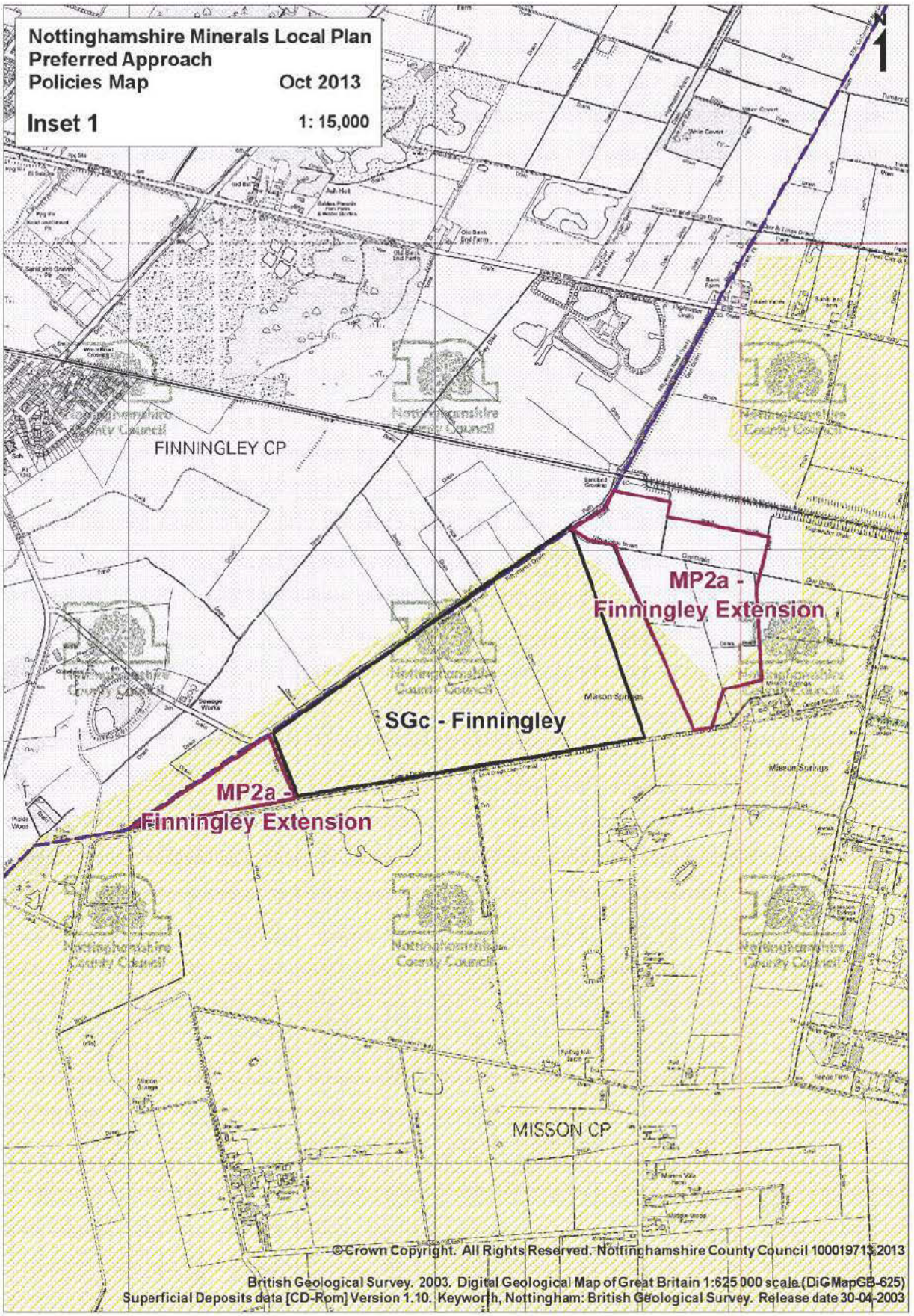
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Preferred Approach
Policies Map
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MP2a - Finningley Extension
SGc - Finningley
MP2a - Finningley Extension
MISSON CP
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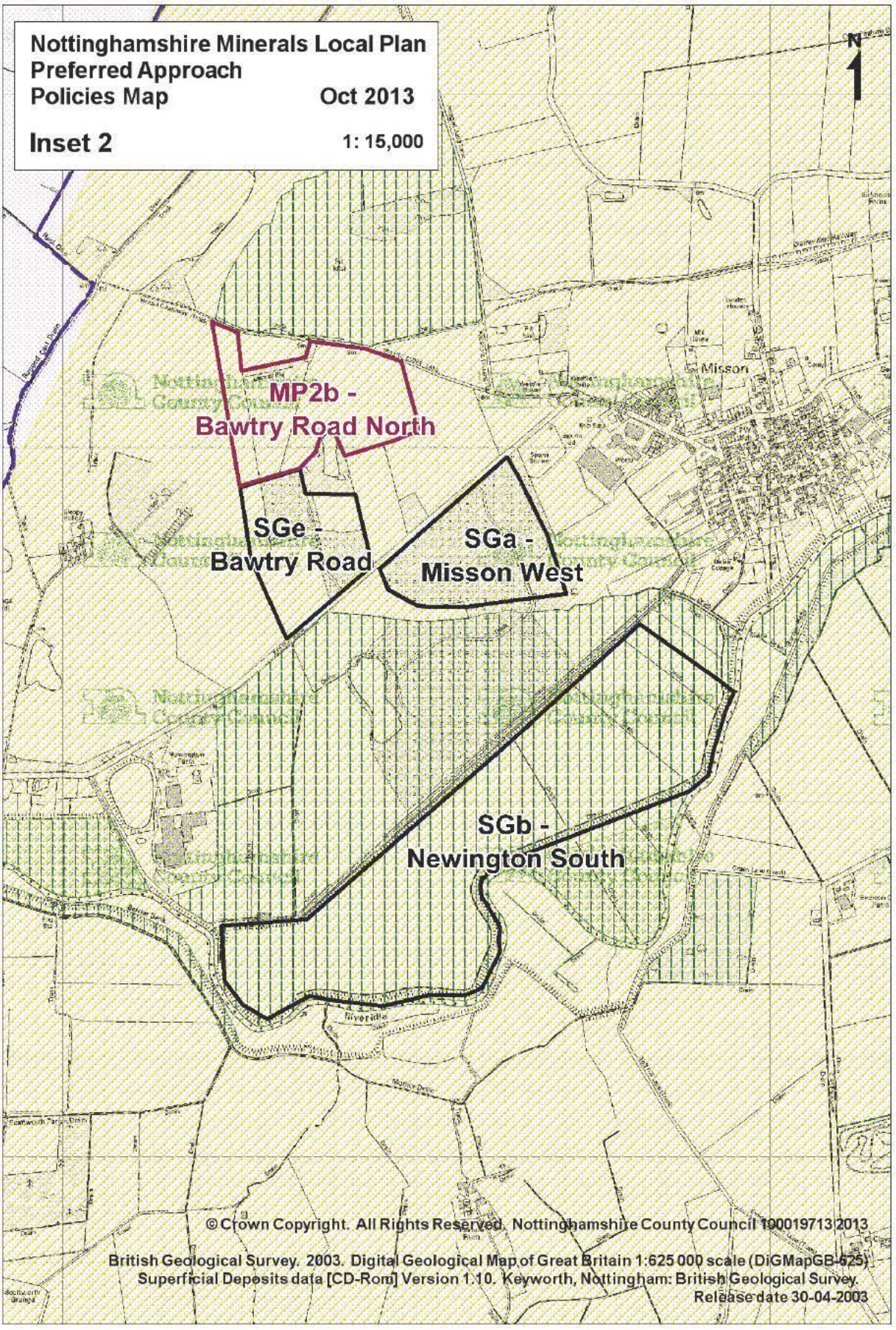
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Preferred Approach
Policies Map Oct 2013
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SGa -
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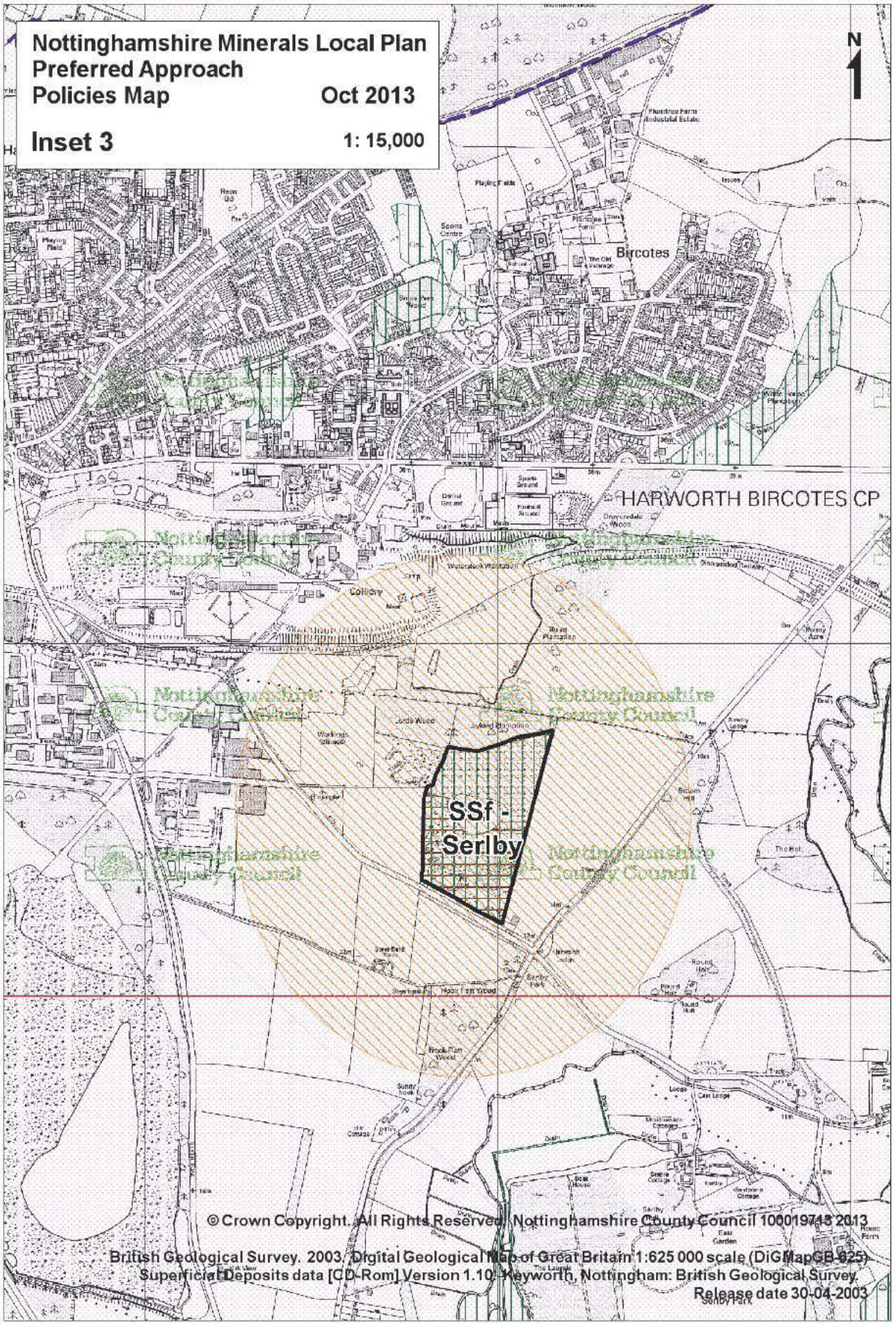
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Preferred Approach
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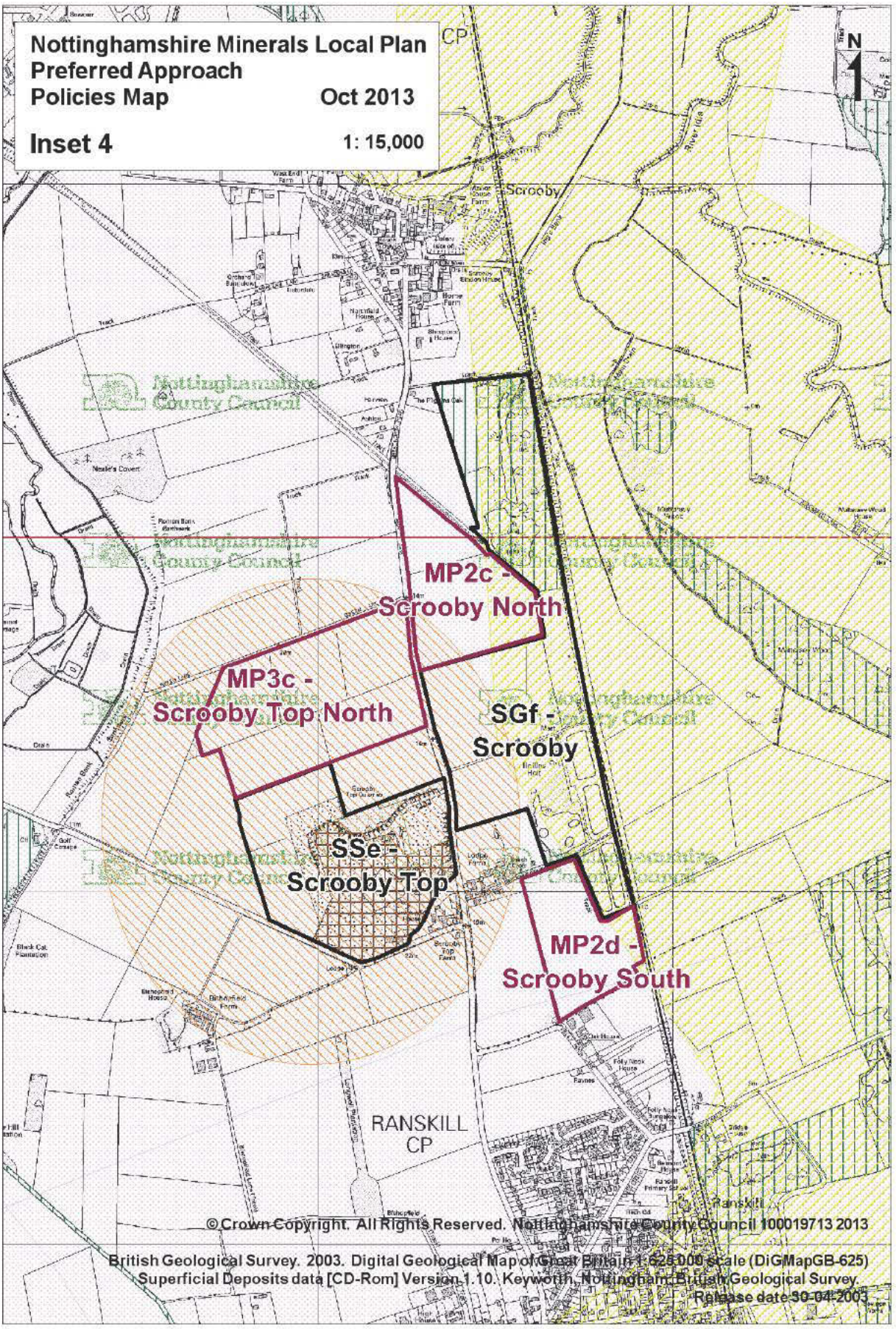
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Preferred Approach
Policies Map Oct 2013
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Scrooby
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MP3c - Scrooby Top North
SGf - Scrooby
SSe - Scrooby Top
MP2d - Scrooby South
RANSKILL CP
Ranskill
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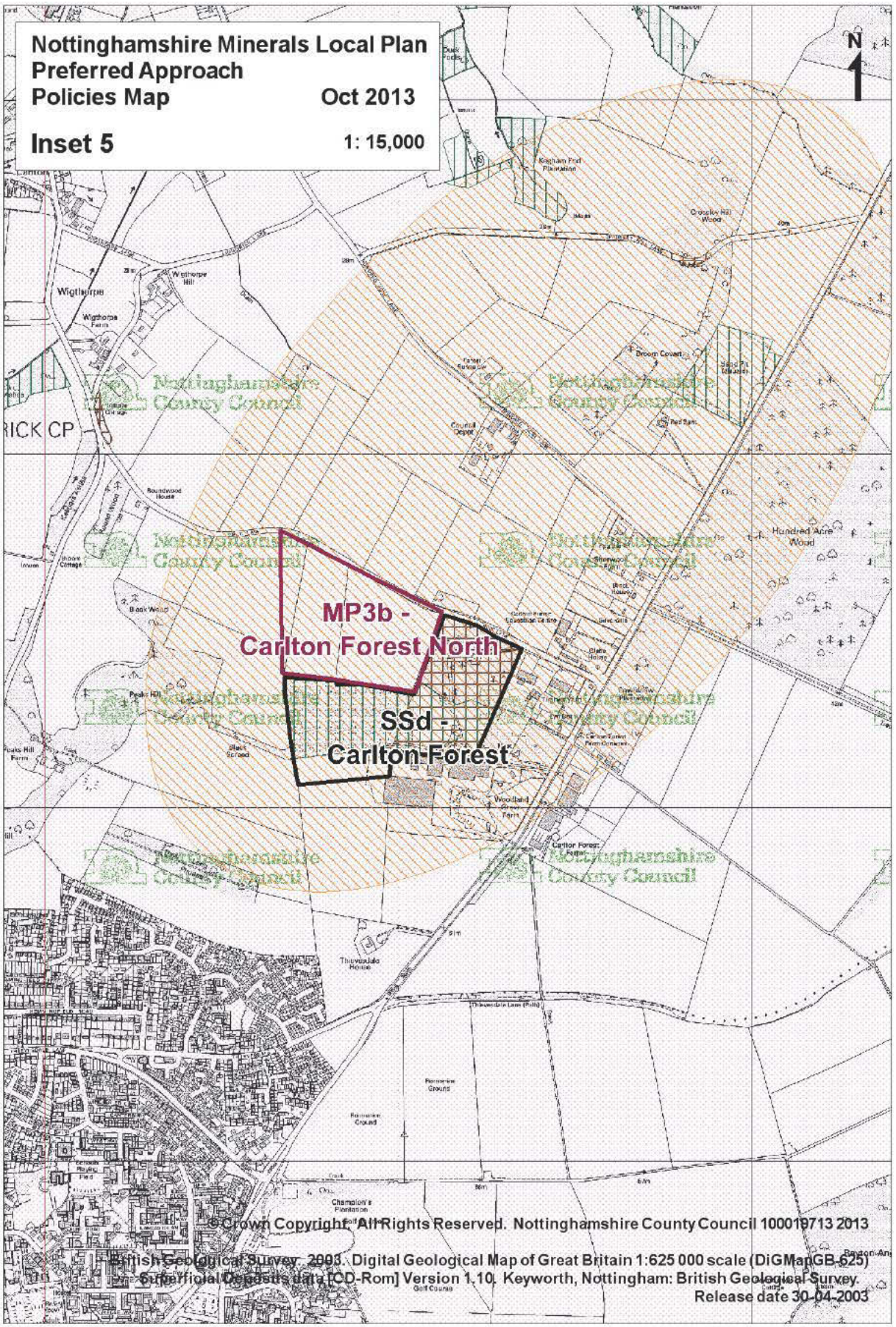
Nottinghamshire Minerals Local Plan
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N
MP3b -
Carlton Forest North
SSd -
Carlton Forest
Wigthorpe
RICK CP
Hundred Acre Wood
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British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625)
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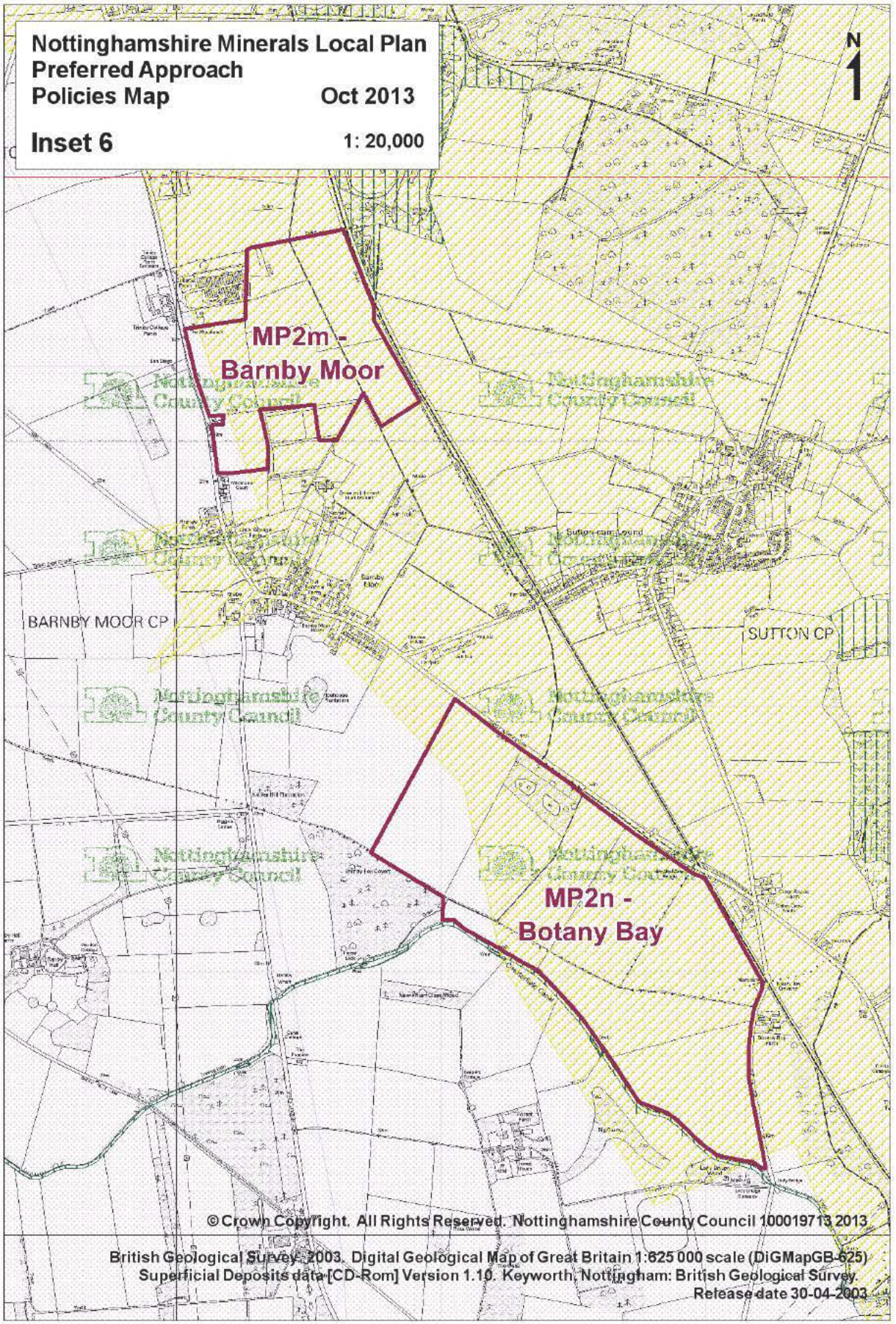
Release date 30-04-2003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Preferred Approach
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N
1
MP2m - Barnby Moor
MP2n - Botany Bay
BARNBY MOOR CP
SUTTON CP
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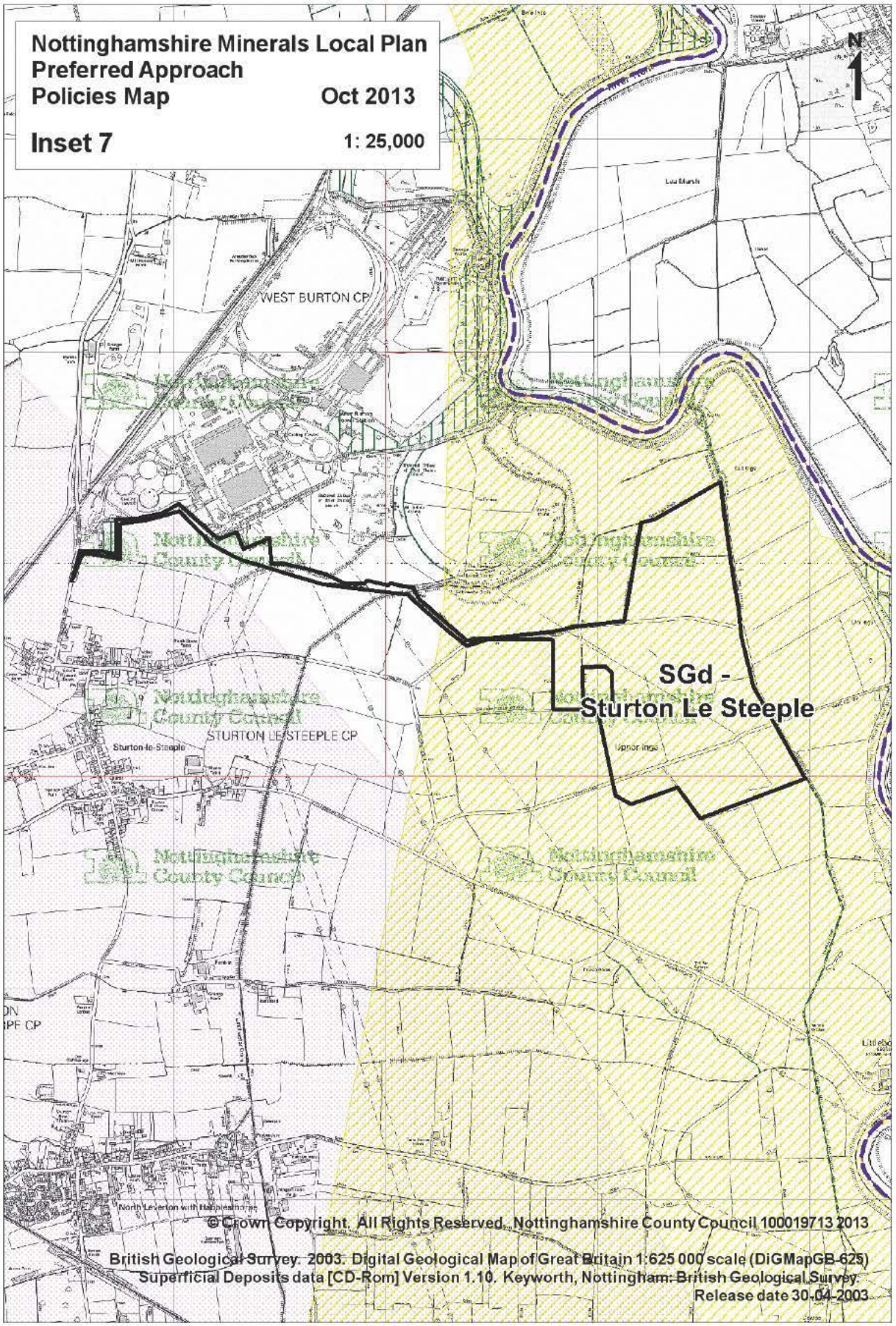
British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003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Preferred Approach
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N
1
WEST BURTON CP
STURTON LE STEEPLE CP
Sturton-le-Steeple
SGd -
Sturton Le Steeple
North Leverton with Habblesthorpe
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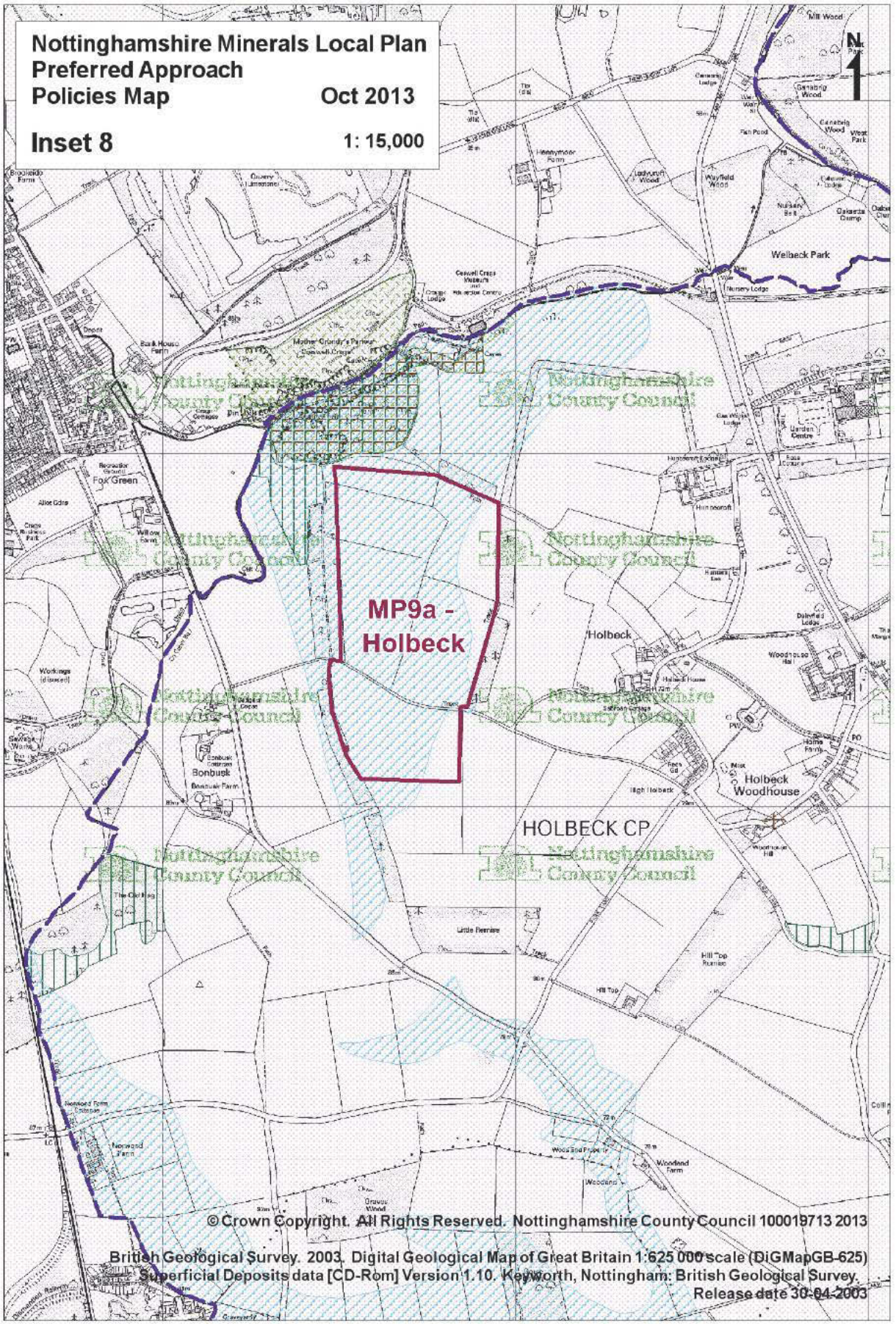
British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003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Inset 8 1: 15,000
MP9a - Holbeck
HOLBECK CP
Holbeck
Holbeck Woodhouse
Bonbusk
Fox Green
Wellbeck Park
Nottinghamshire County Council
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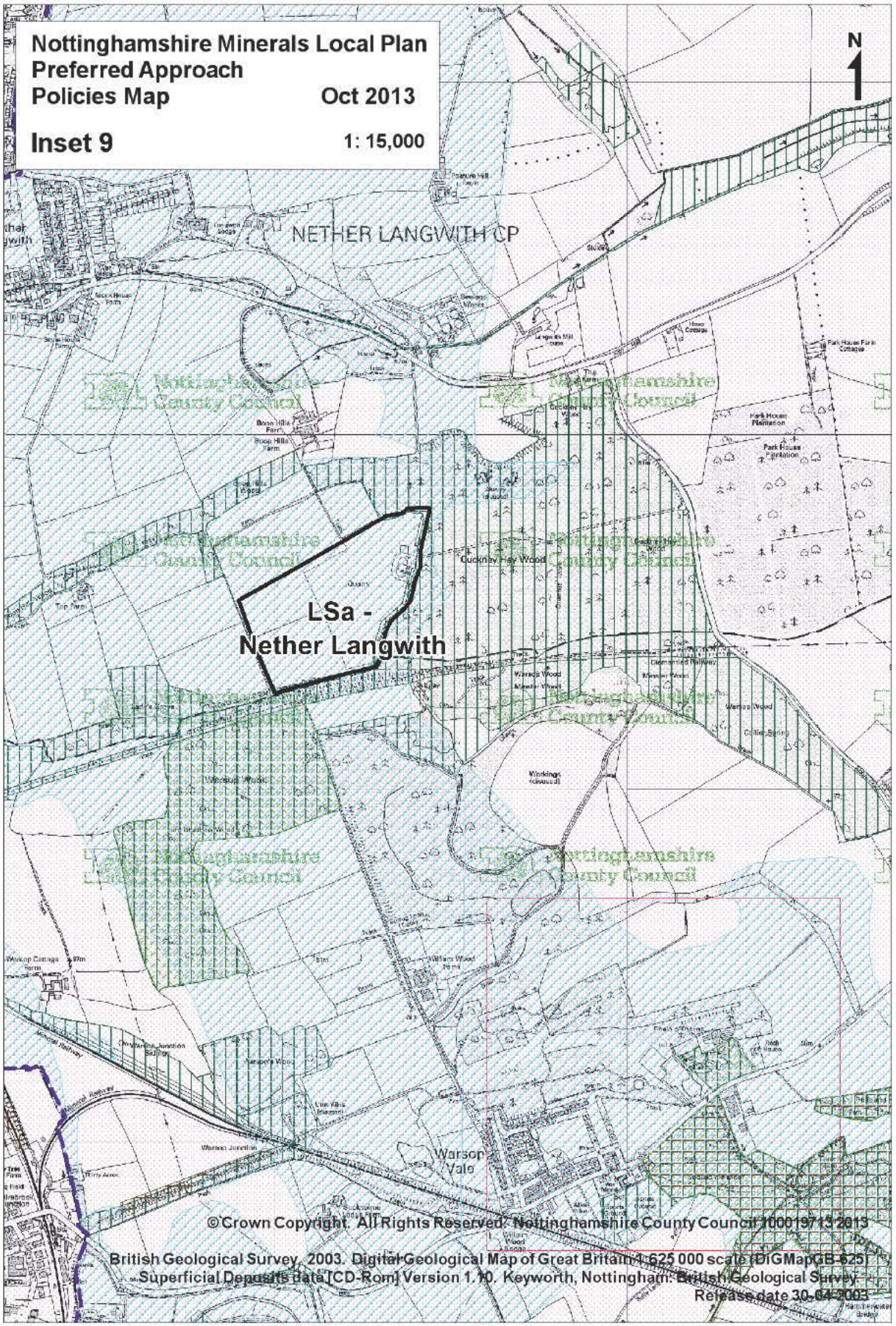
British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003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Inset 9 1: 15,000
N
NETHER LANGWITH CP
LSa -
Nether Langwith
Cuckney Hay Wood
Warsop Vale
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British Geological Survey, 2003. Digital Geological Map of Great Britain 1:625 000 scale [DiGMapGB-625]
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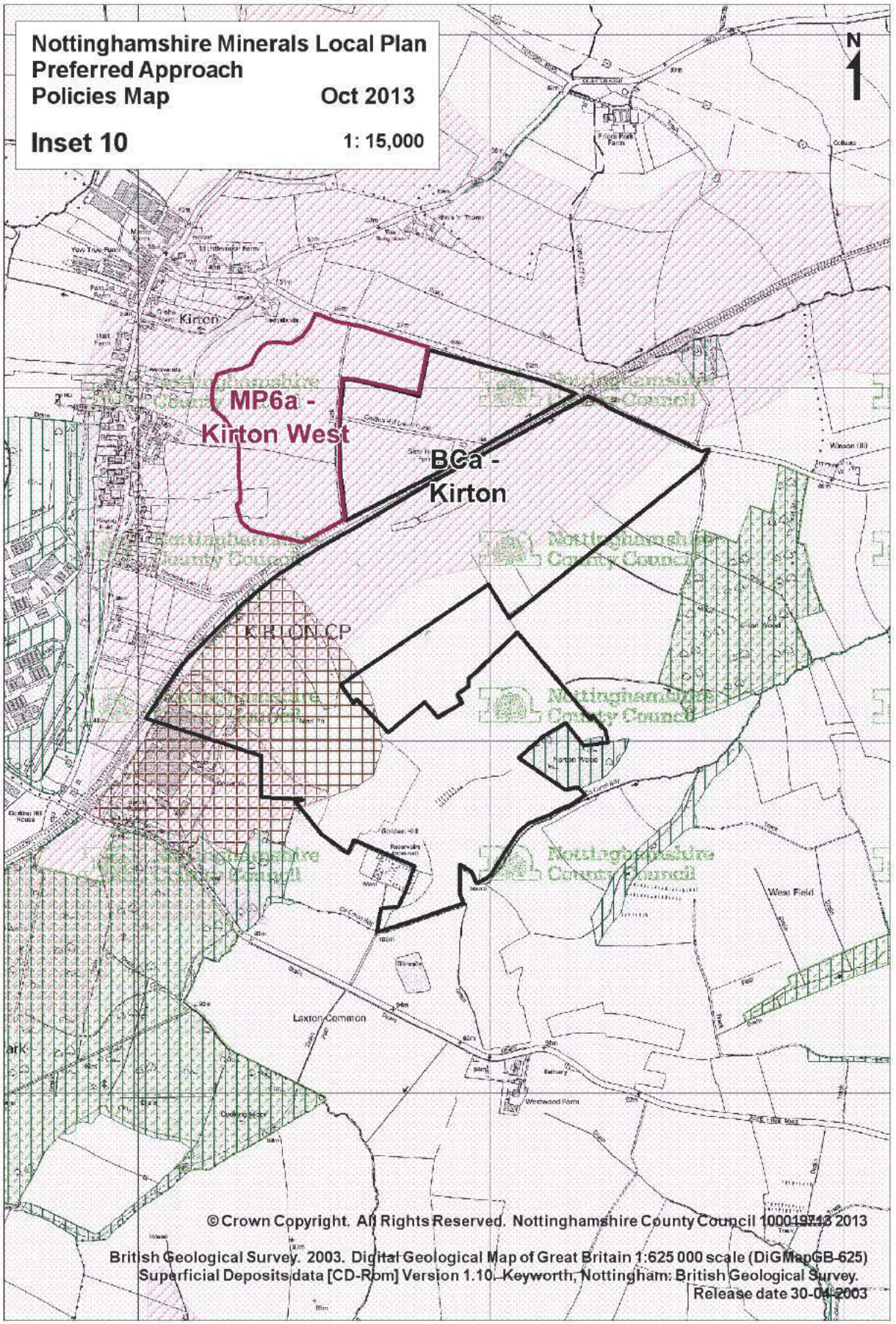
Release date 30-04-2003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Preferred Approach
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Inset 10 1: 15,000
N
1
MP6a - Kirton West
BCa - Kirton
KIRTON CP
Kirton
Laxton Common
West Field
Norton Wood
Westwood Farm
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British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey.
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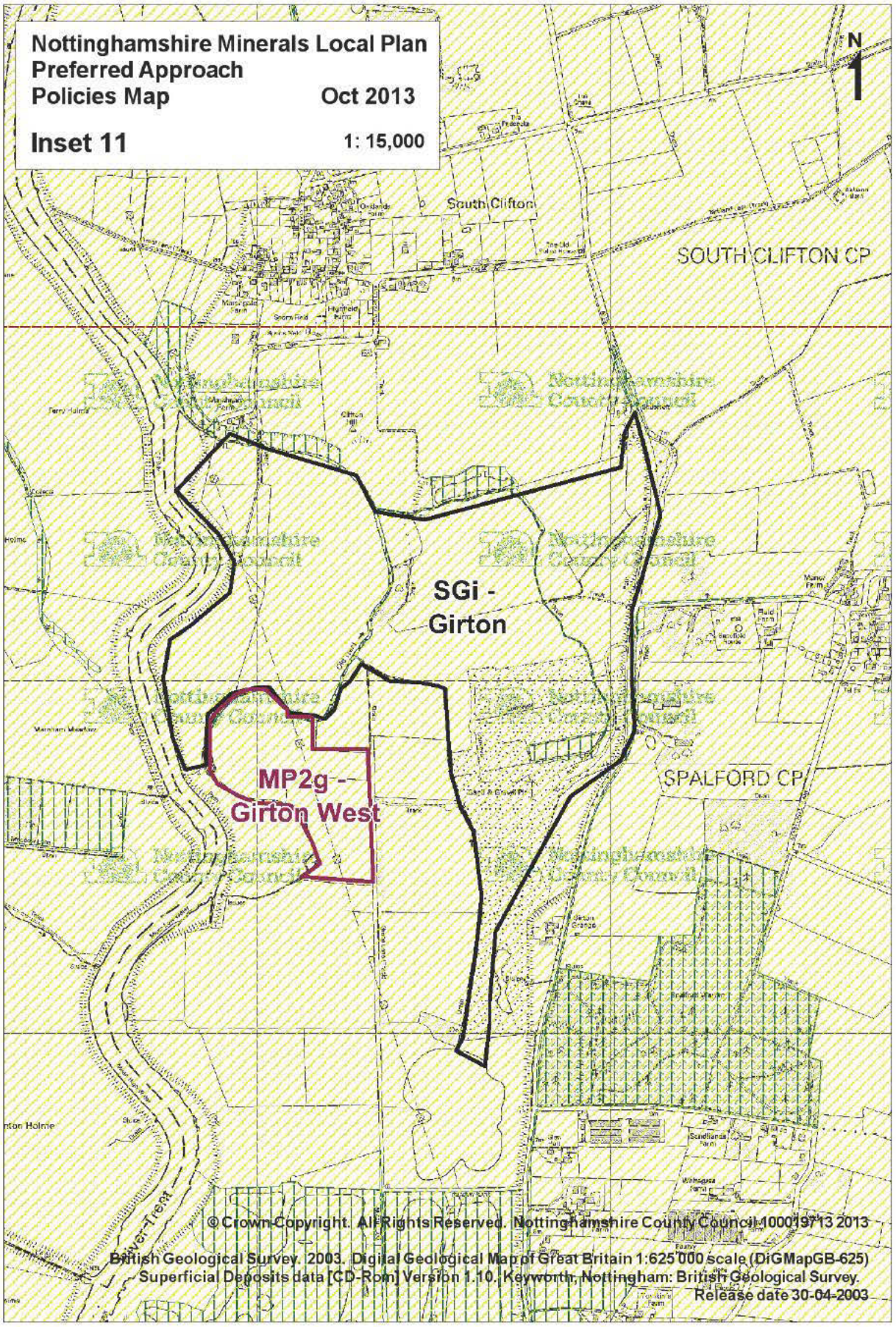
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N
1
South Clifton
SOUTH CLIFTON CP
SGi - Girton
MP2g - Girton West
SPALFORD CP
River Trent
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British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003


Nottinghamshire Minerals Local Plan
Preferred Approach
Policies Map
Oct 2013
Inset 12
1: 25,000
N
SSa - Rufford
SLa - Ratcher Hill
RAINWORTH CP
LINDHURST CP
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British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey.
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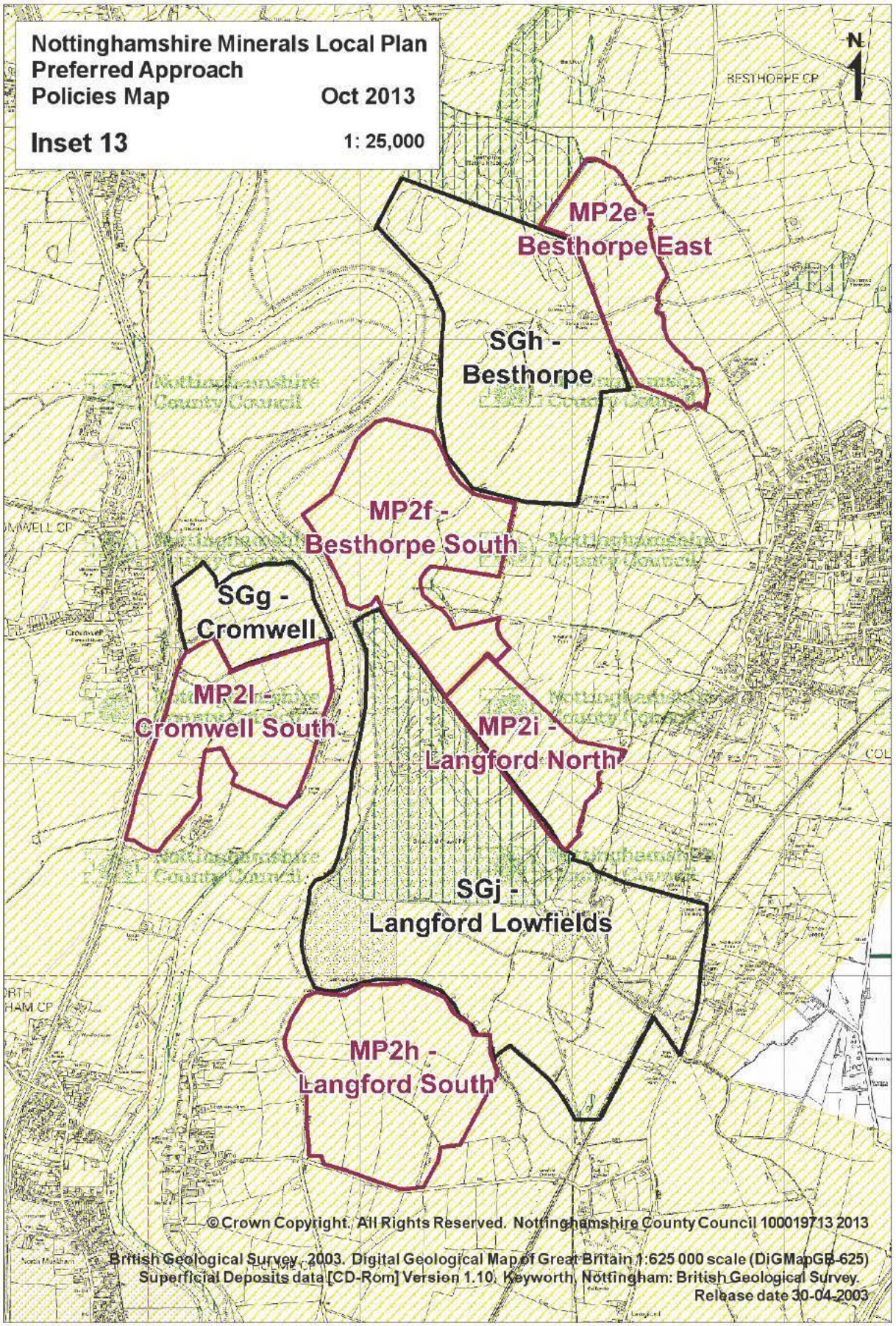
Nottinghamshire Minerals Local Plan
Preferred Approach
Policies Map
Oct 2013
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1: 25,000
N
MP2e - Besthorpe East
SGh - Besthorpe
MP2f - Besthorpe South
SGg - Cromwell
MP2l - Cromwell South
MP2i - Langford North
SGj - Langford Lowfields
MP2h - Langford South
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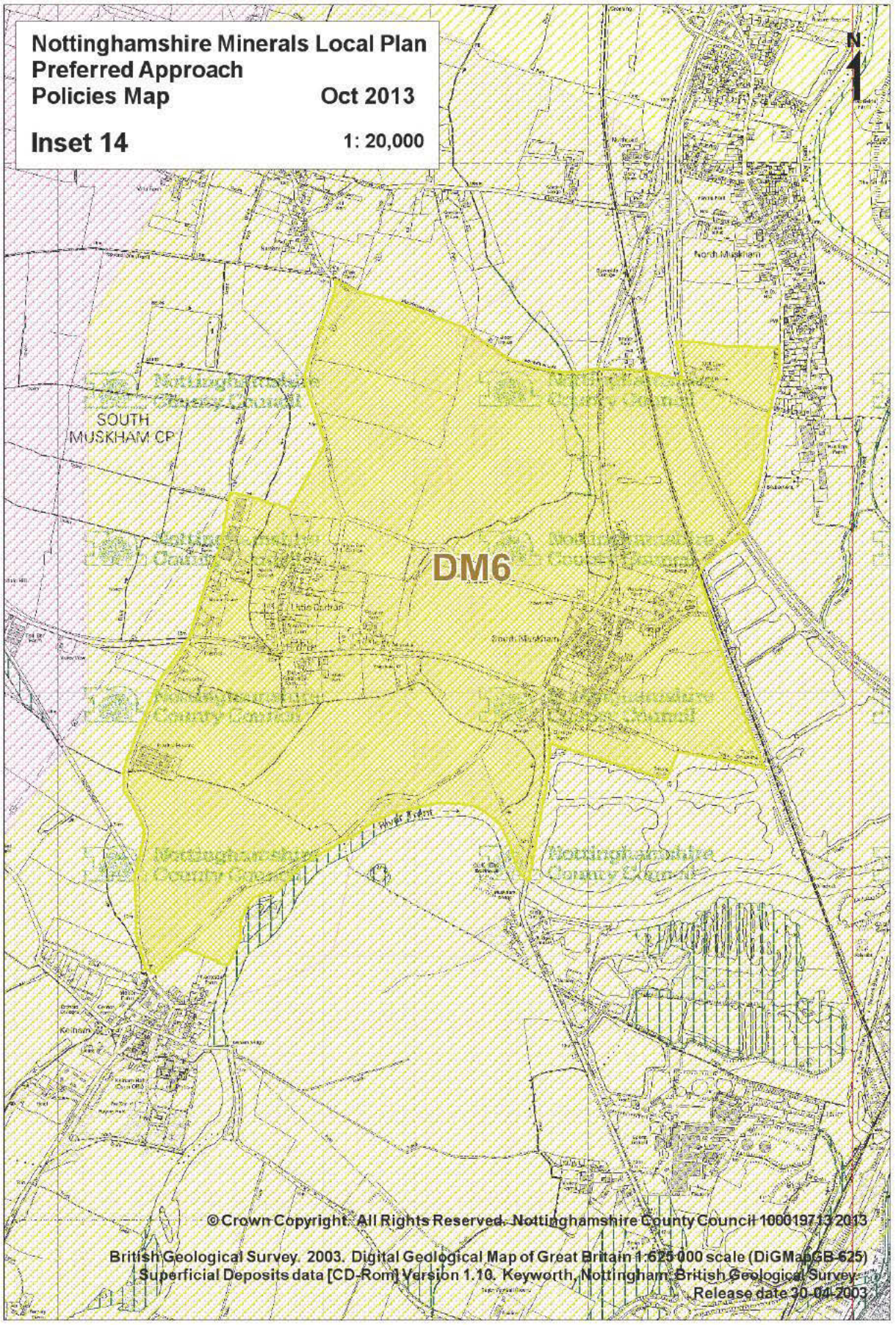
British Geological Survey, 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003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Preferred Approach
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N
SOUTH MUSKHAM CP
DM6
North Muskham
South Muskham
Keelham
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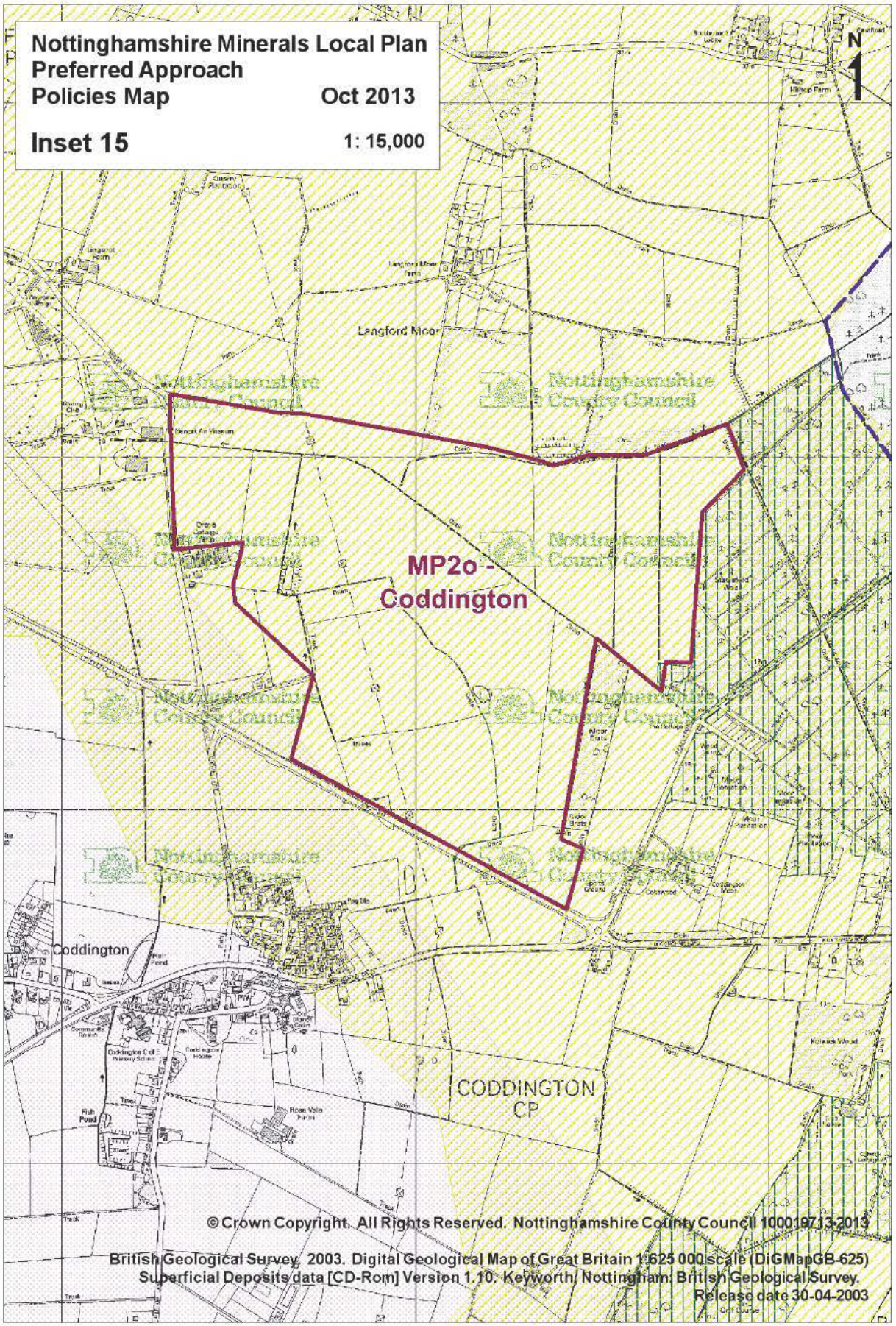
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N
Langford Moor
MP2o - Coddington
Coddington
CODDINGTON CP
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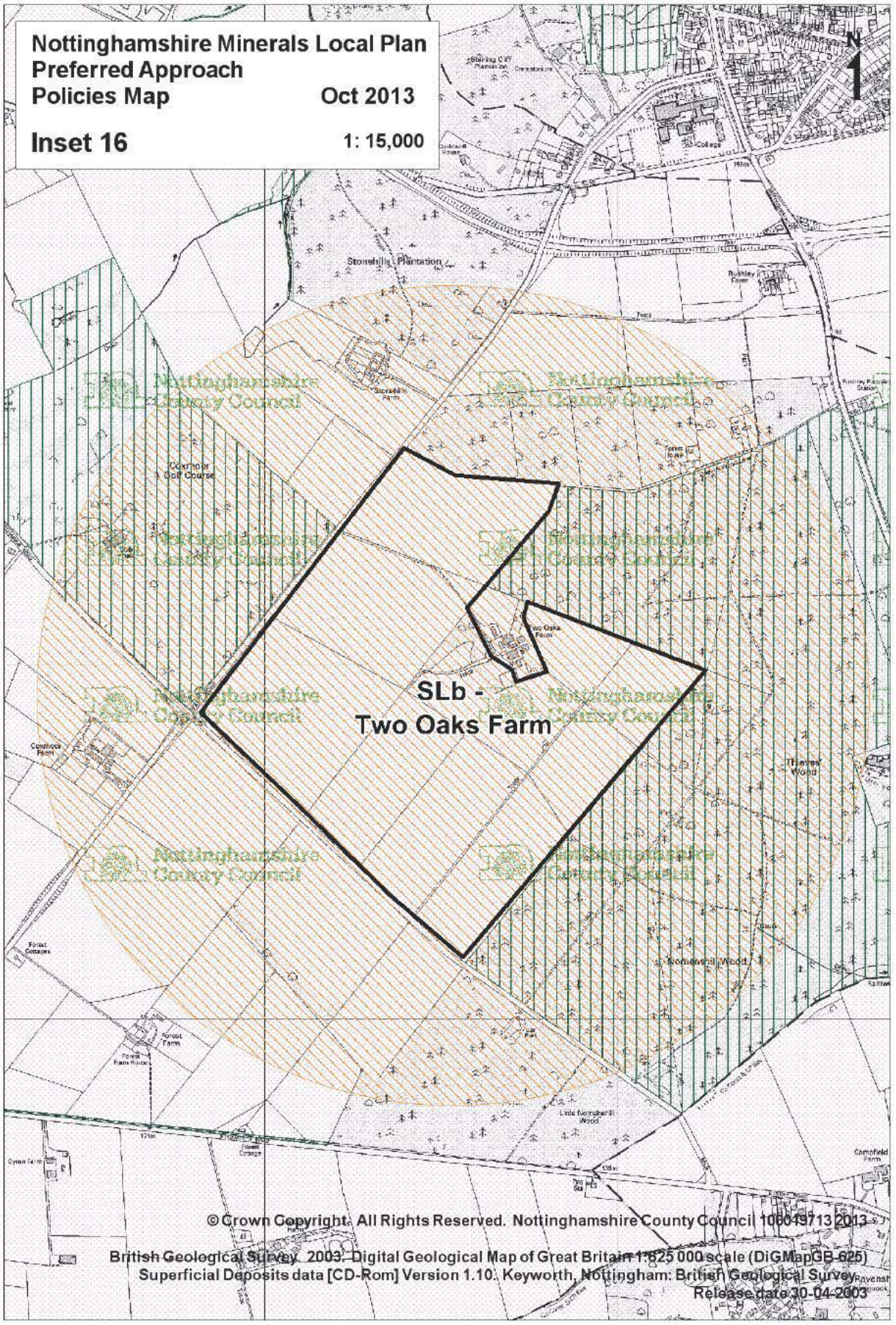
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SLb -
Two Oaks Farm
Stonehills Plantation
Rushley Farm
Two Oaks Farm
Thieves Wood
Nonsenall Wood
Little Nonsenall Wood
Forest Farm
Forest Cottages
Campfield Farm
Nottinghamshire County Council
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British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey.
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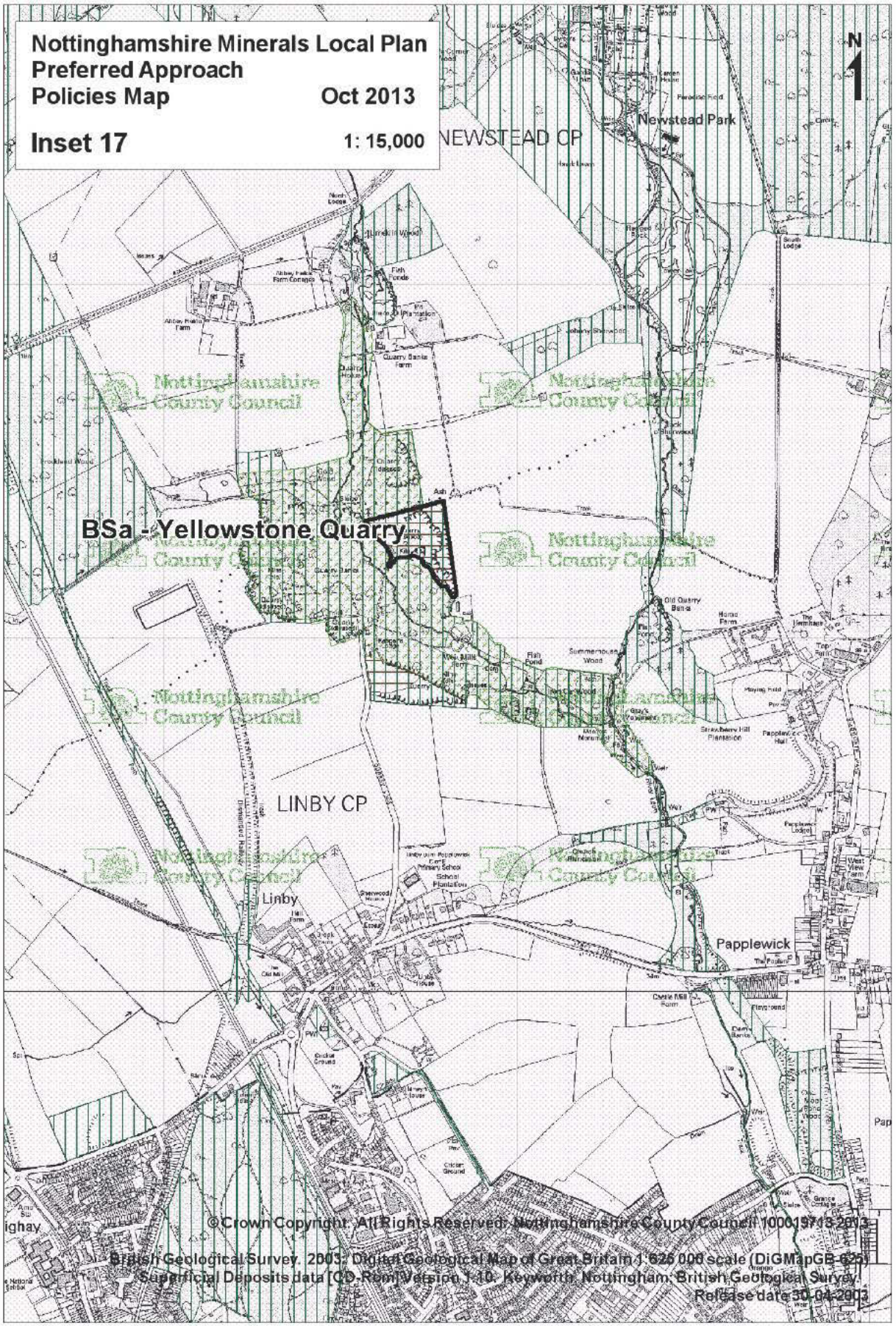
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Preferred Approach
Policies Map Oct 2013
Inset 17 1: 15,000
N
NEWSTEAD CP
Newstead Park
BSa - Yellowstone Quarry
LINBY CP
Linby
Papplewick
Nottinghamshire County Council
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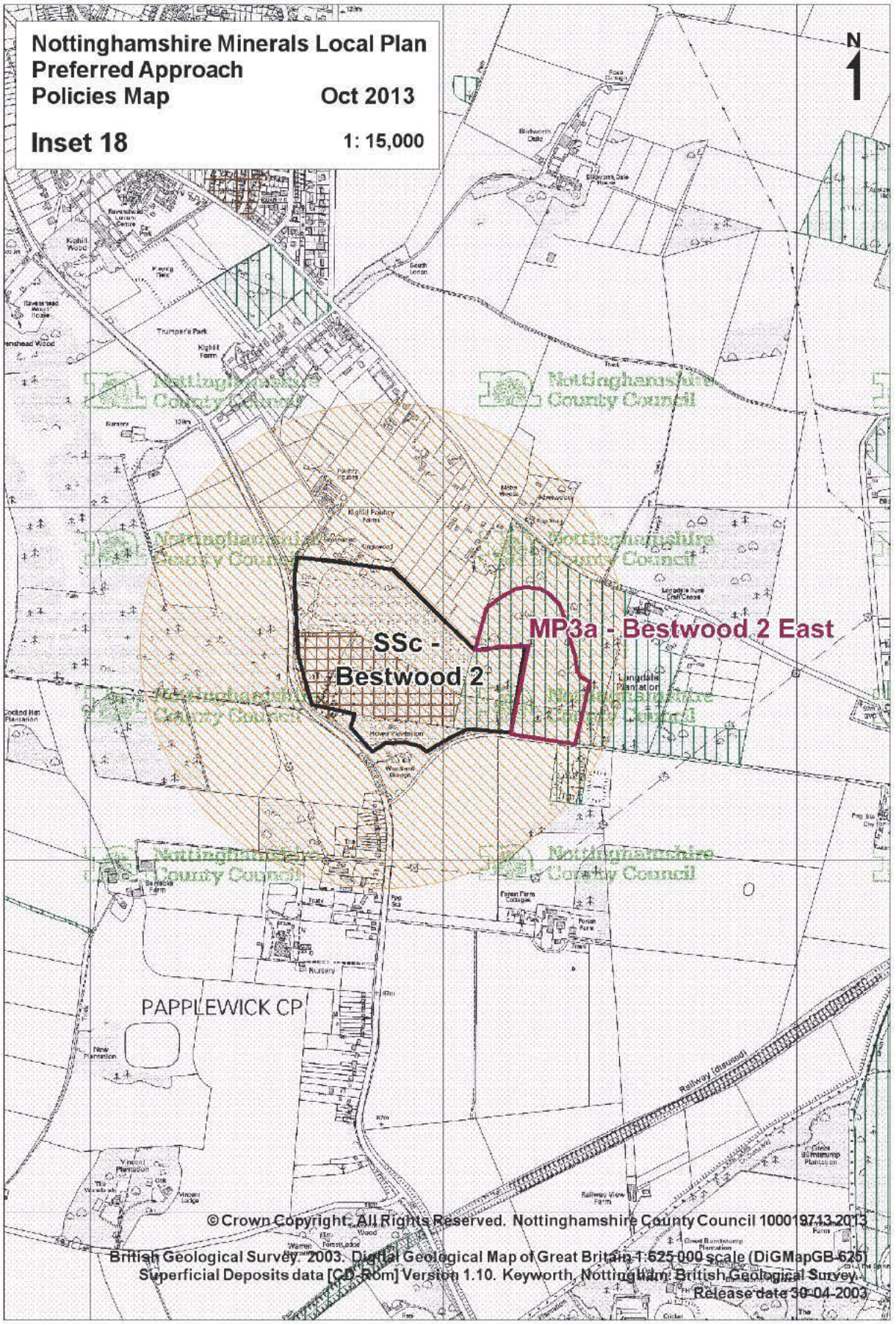
British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30.04.2003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Preferred Approach
Policies Map
Oct 2013
Inset 18
1: 15,000
N
1
SSc - Bestwood 2
MP3a - Bestwood 2 East
PAPPLEWICK CP
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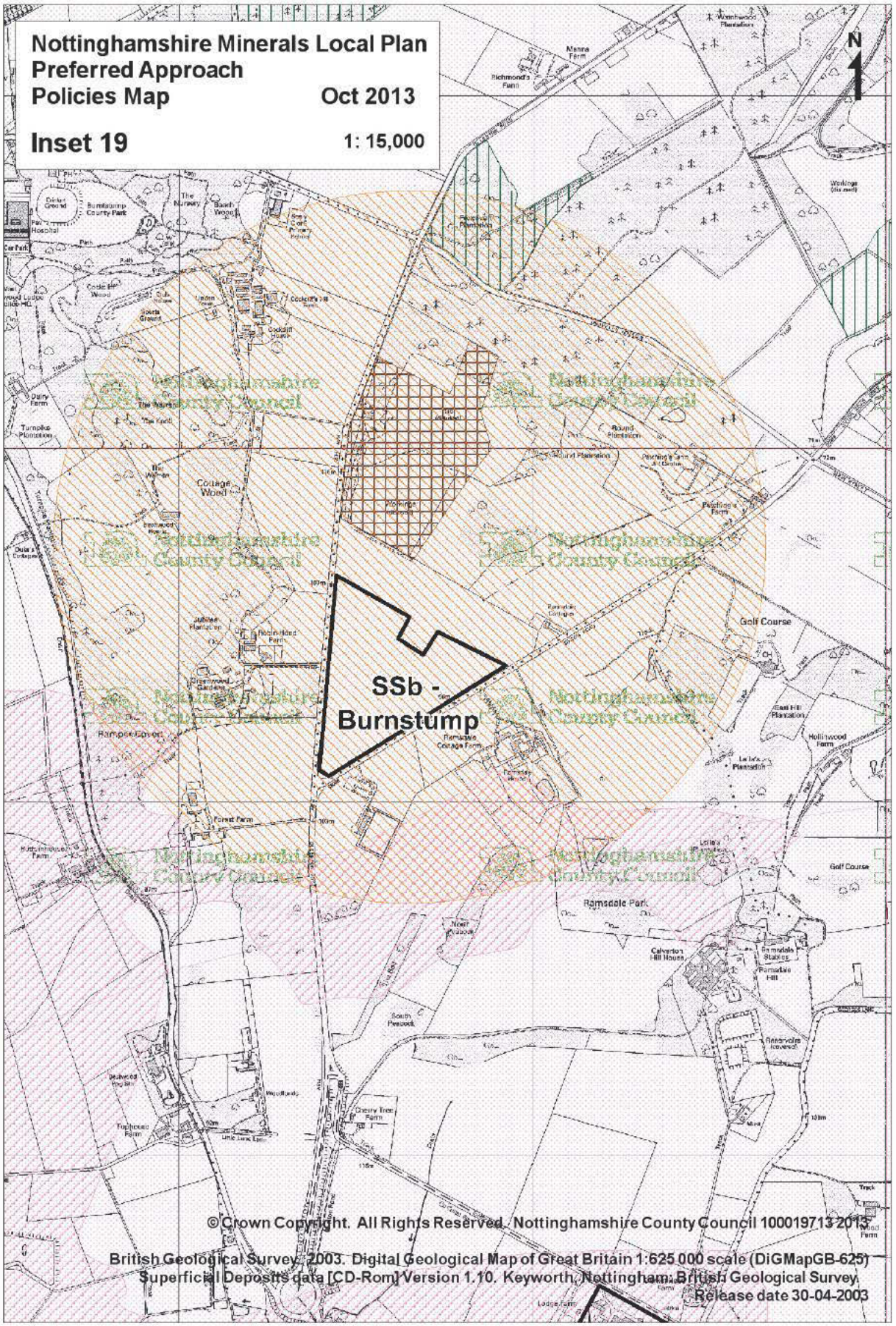
British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003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Preferred Approach
Policies Map Oct 2013
Inset 19 1: 15,000
N
SSb - Burnstump
Golf Course
Ramsdale Park
Nottinghamshire County Council
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British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey.
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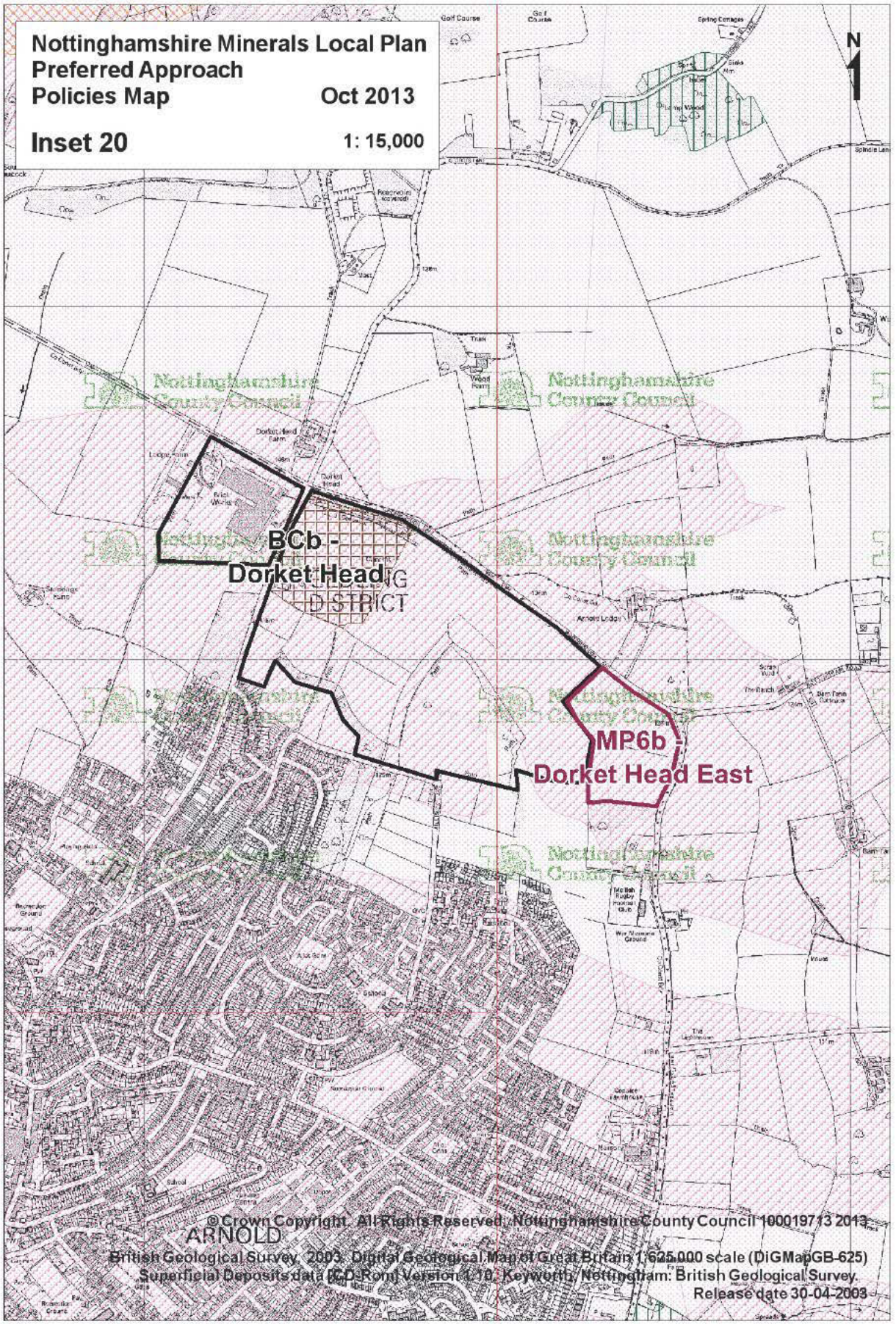
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N
BCb -
Dorket Head
MP6b
Dorket Head East
ARNOLD
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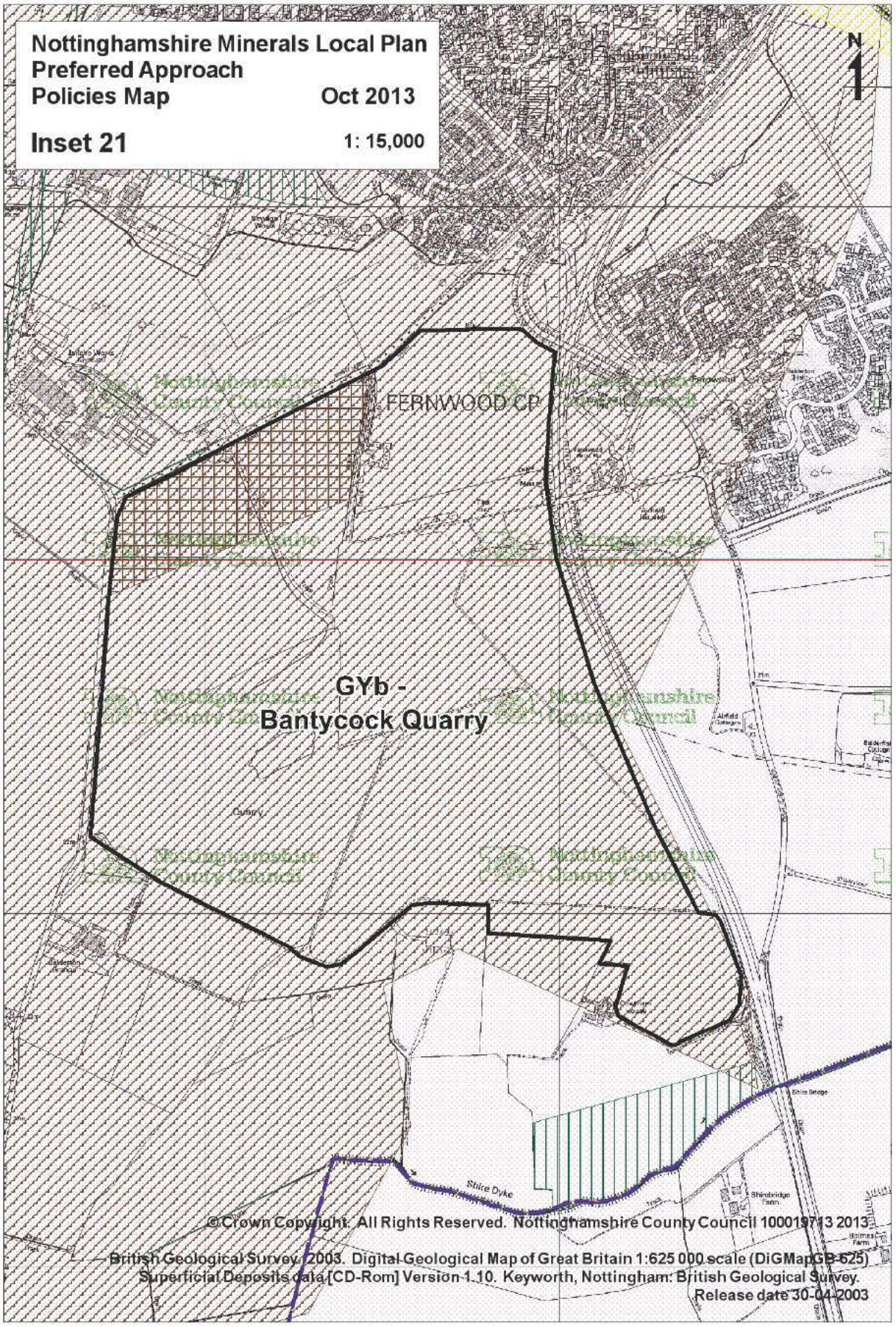
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N
FERNWOOD CP
GYb -
Bantycock Quarry
Stiire Dyke
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British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey.
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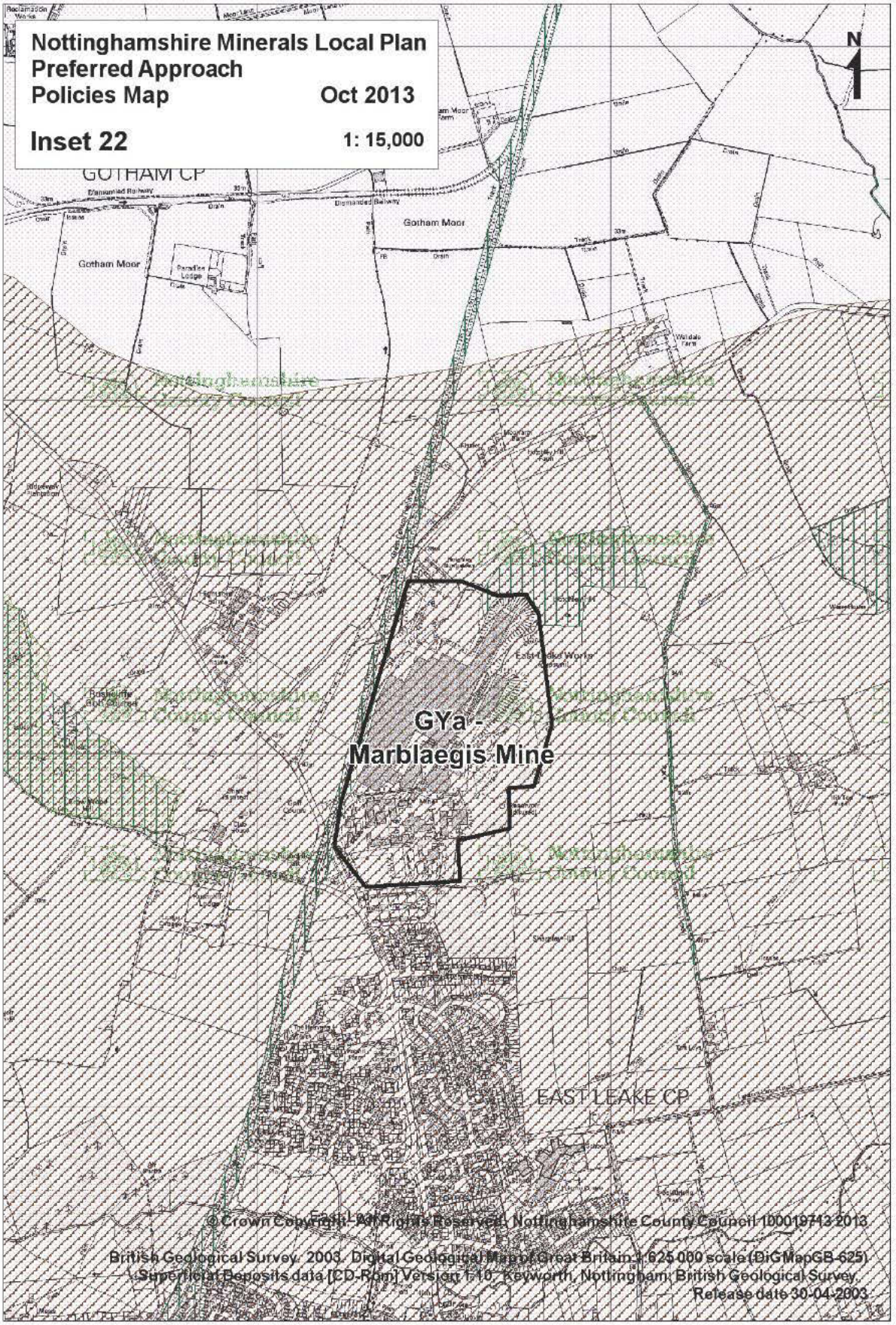
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N
GOTHAM CP
Gotham Moor
Gotham Moor
GYa -
Marblaegis Mine
EAST LEAKE CP
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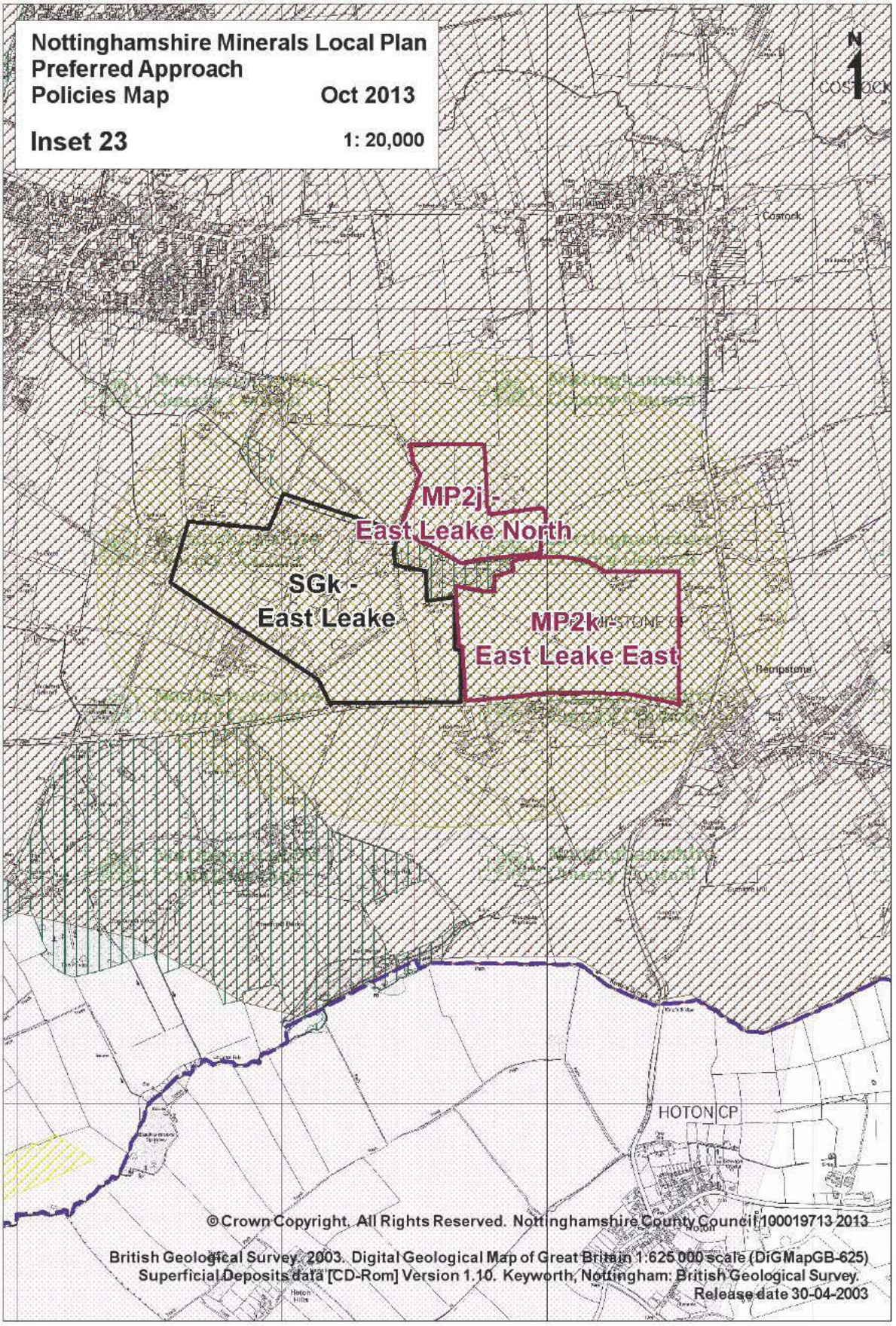
British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003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N
MP2j - East Leake North
SGk - East Leake
MP2k - East Leake East
Costock
Rempstone
HOTON CP
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British Geological Survey. 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiGMapGB-625) Superficial Deposits data [CD-Rom] Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003

APPENDIX 5: MONITORING AND IMPLEMENTATION TABLE

Policy	Related Strategic Objective	Key Outcomes of Policy	Performance Indicator	Trigger
POLICY SP1 – SUSTAINABLE DEVELOPMENT	SO1: Improving the sustainability of minerals development	Achieving sustainable development	Proposals according with the Minerals Local Plan Outcomes of monitoring methods as set out below	Significant number of policies in the Minerals Preferred Approach not meeting targets
POLICY SP2 – BIODIVERSITY LED RESTORATION	SO6: Protecting and enhancing natural assets	Inter connectivity between existing habitats and restoration schemes will be achieved and the biodiversity of the County will be improved	Number of mineral planning permissions with biodiversity led restoration schemes Planning permissions granted in designated areas. Planning permissions granted contrary to Natural England advice	Significant decrease in biodiversity targets being met
POLICY SP3 – CLIMATE CHANGE	SO3: Addressing climate change	New proposals will be resilient to the impacts of climate change	Planning permissions granted contrary to Environment Agency advice	Significant number of developments approved which identify harmful impacts on climate change (more than 10%)
POLICY SP4 – MINERALS PROVISION	SO2: Providing an adequate supply of minerals	Maintaining an adequate supply of mineral	Number of planning permissions consistent with the Minerals Local Plan	Number of planning approvals on unallocated sites
POLICY SP5 – SUSTAINABLE TRANSPORT	SO1: Improving the sustainability of minerals development SO5: Minimising the impact on communities	Non-road transport for new/extended mineral sites	Number of planning applications with a sustainable transport assessments	N/A (Aspirational Policy)

POLICY SP6 – THE BUILT AND NATURAL ENVIRONMENT	SO7: Protecting and enhancing historic assets	To protect and enhance the built and natural environment from adverse developmental impacts	Planning permissions granted contrary to Natural England advice Planning permissions granted contrary to English Heritage advice	Significant number of developments approved which identify harmful impacts on the built and natural environment (more than 10%)
POLICY SP7 – THE NOTTINGHAMSHIRE GREEN BELT	SO6: Protecting and enhancing natural assets SO8: Protecting agricultural land	To ensure new minerals development does not compromise the openness and purpose of land within the Green Belt	Number of planning permissions granted within the Green Belt	Number of planning permissions granted contrary to Green Belt policy
POLICY MP1: AGGREGATE PROVISION	SO2: Providing an adequate supply of minerals	Maintaining an adequate supply of mineral	Number of planning permissions consistent with the Minerals Local Plan	Number of planning approvals on unallocated sites
POLICY MP2: SAND AND GRAVEL PROVISION	SO2: Providing an adequate supply of minerals	To maintain an adequate supply of sand and gravel to meet the 7 year landbank requirement	Number of planning permissions not consistent with the Minerals Local Plan Size of landbank and apportionment figure meeting met	Sand and Gravel production reduced by more than 10% per annum.
POLICY MP3: SHERWOOD SANDSTONE PROVISION	SO2: Providing an adequate supply of minerals	To maintain an adequate supply of Sherwood sandstone to meet the 7 year landbank requirement	Number of planning permissions not consistent with the Minerals Local Plan Size of landbank and apportionment figure meeting met	Sherwood Sandstone production reduced by more than 10% per annum.

Policy	Related Strategic Objective	Key Outcomes of Policy	Performance Indicator	Trigger
POLICY MP4: LIMESTONE PROVISION	SO2: Providing an adequate supply of minerals	To maintain an adequate supply of limestone to meet the 10 year landbank Requirement	Number of planning permissions not consistent with the Minerals Local Plan Size of landbank and apportionment figure meeting met	Limestone production reduced by more than 10% per annum.
POLICY MP5: SECONDARY AND RECYCLED AGGREGATES	SO1: Improving the sustainability of minerals development SO2: Providing an adequate supply of minerals	Maintaining an adequate supply of mineral and encourage the use of secondary and recycled minerals	Production of recycled and secondary aggregates	Year on year decrease in the production of recycled and secondary aggregates
POLICY MP6: BRICK CLAY PROVISION	SO2: Providing an adequate supply of minerals	To maintain an adequate supply of brickclay to meet the 25 year landbank requirement	Number of new planning permissions not consistent with the Minerals Local Plan Size of landbank	Brick Clay production reduced by more than 20% per annum.
POLICY MP7: GYPSUM PROVISION	SO2: Providing an adequate supply of minerals	Maintaining an adequate supply of mineral	Number of new planning permissions not consistent with the Minerals Local Plan Amount of Gypsum extracted (tonnes/annum)	Year on year decrease in the production of Gypsum
POLICY MP8: SILICA SAND PROVISION	SO2: Providing an adequate supply of minerals	To maintain an adequate supply of silica sand to meet the 10 year landbank requirement	Number of new planning permissions not consistent with the Minerals Local Plan Size of landbank	Year on year decrease in the production of Silica Sand

POLICY MP9: INDUSTRIAL DOLOMITE PROVISION	SO2: Providing an adequate supply of minerals	Maintaining an adequate supply of mineral for the international market	Number of new planning permissions not consistent with the Minerals Local Plan Amount of Industrial Dolomite extracted (tonnes/annum)	Number of planning permissions granted contrary to the Policy (>0)
POLICY MP10: BUILDING STONE PROVISION	SO2: Providing an adequate supply of minerals	Maintaining an adequate supply of mineral and preserve and enhance local historic distinctiveness	Number of new planning permissions not consistent with the Minerals Local Plan	Number of planning permissions granted contrary to the Policy (>0)
POLICY MP11: COAL	SO2: Providing an adequate supply of minerals	Maintaining an adequate supply of mineral	Number of new planning permissions not consistent with the Minerals Local Plan	Number of planning permissions granted contrary to the Policy (>0)
POLICY MP12: HYDROCARBON MINERALS	SO2: Providing an adequate supply of minerals	Maintaining an adequate supply of mineral	Number of new planning permissions not consistent with the Minerals Local Plan	Number of planning permissions granted contrary to the Policy (>0)
DM1: PROTECTING LOCAL AMENITY	SO5: Minimising the impact on communities	Providing a good standard of amenity and protecting from adverse developmental impacts	Planning permissions granted contrary to Environment Agency advice Planning permissions granted contrary to Environmental Health Officer advice (Air quality areas, noise, dust levels,	Significant number of developments approved which identify harmful impacts on the local amenity (more than 10%)

Policy	Related Strategic Objective	Key Outcomes of Policy	Performance Indicator	Trigger
POLICY DM2: WATER RESOURCES AND FLOOD RISK	SO3: Addressing climate change	To protect water resources and protect from flooding	Number of new planning permissions granted contrary to Environment Agency advice on flooding and water quality grounds	Number of planning permissions granted contrary to Environment Agency (>0)
POLICY DM3: AGRICULTURAL LAND AND SOIL QUALITY	SO8: Protecting agricultural land	To provide for the conservation of the best and most versatile agricultural land and to provide for the conservation of soil resources	Amount of best and most versatile agricultural land lost to new mineral development	Number of developments approved which result in a net loss of best and most versatile agricultural land (more than 10%)
POLICY DM4: PROTECTION AND ENHANCEMENT OF BIODIVERSITY AND GEODIVERSITY	SO6: Protecting and enhancing natural assets	To protect and enhance the biodiversity and geodiversity of Nottinghamshire from adverse developmental impacts	Significant adverse change in biodiversity and geodiversity assets in the County Number of new minerals planning permissions granted in environmentally sensitive area Planning permissions granted contrary to Natural England advice	Number of planning permissions granted contrary to Natural England advice (>0) Significant decrease in biodiversity targets being met
POLICY DM5: LANDSCAPE CHARACTER	SO6: Protecting and enhancing natural assets SO8: Protecting agricultural land	To maintain, protect and enhance the character and distinctiveness of the landscape	Planning permissions granted contrary to Natural England advice	Number of planning permissions granted contrary to Natural England advice (>0)
POLICY DM6: HISTORIC ENVIRONMENT	SO7: Protecting and enhancing historic assets	To conserve important heritage assets	Planning permissions granted contrary to English Heritage advice	Significant number of developments approved which identify harmful impacts on the historic environment (more than 10%)

POLICY DM7: PUBLIC ACCESS	SO5: Minimising the impact on communities SO6: Protecting and enhancing natural assets SO8: Protecting agricultural land	To prevent negative impacts on existing public access routes and improve and enhance the Rights of Way network where possible	Number of new Public Rights of Way permitted/lost/diverted in new mineral developments	Number of planning permissions granted which do not maintain/ provide enhanced public access
POLICY DM8: CUMULATIVE IMPACT	SO1: Improving the sustainability of minerals development	Prevention of negative cumulative impacts	Number of planning permissions granted in close proximity where extraction would occur at the same time	Number of planning permissions granted in close proximity where extraction would occur at the same time (more than 10%)
POLICY DM9: HIGHWAYS SAFETY AND VEHICLE MOVEMENTS/ ROUTEING	SO1: Improving the sustainability of minerals development SO3: Addressing climate change	Improved highway safety and appropriate routeing schemes	Planning permissions granted contrary to Highways Agency advice Planning permissions granted contrary to the Highway Authority advice	Number of planning permissions granted contrary to Highway Agency advice (>0)
POLICY DM10: PLANNING OBLIGATIONS	SO1: Improving the sustainability of minerals development	Requirements from development will be met	Number of agreed S106 agreements	Number of planning permissions granted with s106 agreements

Policy	Related Strategic Objective	Key Outcomes of Policy	Performance Indicator	Trigger
POLICY DM11: RESTORATION, AFTER-USE AND AFTER-CARE	SO1: Improving the sustainability of minerals development SO2: Providing an adequate supply of minerals SO3: Addressing climate change	Land will be reclaimed at the earliest opportunity and high quality restoration and after care will be achieved	Number of new minerals permissions subject to restoration, after care and after use plans	Number of planning permissions granted without satisfactory restoration plans (>0)
POLICY DM12: AIRPORT SAFEGUARDING (BIRD STRIKE)	SO5: Minimising the impact on communities	Conflict between local water bird populations and aviation will be safeguarded	Number of water based restoration schemes approved within safeguarded area	Number of planning permissions granted without consideration of future restoration in airport safeguarding areas (>0)
POLICY DM13: MINERAL SAFEGUARDING AND CONSULTATION AREAS	SO1: Improving the sustainability of minerals development SO2: Providing an adequate supply of minerals SO3: Addressing climate change	To prevent mineral sterilisation and preserve the mineral for future use	Area of mineral safeguarding area sterilised by non-minerals development Area of mineral safeguarding area granted permission for non-mineral development by the Local Planning Authority contrary to the Minerals Planning Authority's advice.	Area of mineral safeguarding area sterilised

POLICY DM14: INCIDENTAL MINERAL EXTRACTION	SO1: Improving the sustainability of minerals development SO2: Providing an adequate supply of minerals SO3: Addressing climate change SO6: Protecting and enhancing natural assets	Promotion of sustainable development and conservation of mineral resources	N/A	N/A
POLICY DM15: IRRIGATION LAGOONS	SO1: Improving the sustainability of minerals development SO2: Providing an adequate supply of minerals SO3: Addressing climate change SO6: Protecting and enhancing natural assets	To provide benefits to agricultural productivity and enhance the landscape/biodiversity	N/A	N/A

Policy	Related Strategic Objective	Key Outcomes of Policy	Performance Indicator	Trigger
POLICY DM16: BORROW PITS	SO1: Improving the sustainability of minerals development SO2: Providing an adequate supply of minerals SO3: Addressing climate change SO6: Protecting and enhancing natural assets	Sustainable development will be achieved	N/A	N/A
POLICY DM17: ASSOCIATED INDUSTRIAL DEVELOPMENT	SO1: Improving the sustainability of minerals development SO2: Providing an adequate supply of minerals SO3: Addressing climate change	Sustainable development will be achieved and compliance with other national planning policy will be addressed	Number of planning consents for associated industrial development without conditions limiting the life of the associated use.	Number of planning consents for associated industrial development without conditions limiting the life of the associated use (>0)
POLICY DM18: MINERAL EXPLORATION	SO1: Improving the sustainability of minerals development SO2: Providing an adequate supply of minerals SO3: Addressing climate change	Maintaining an adequate supply of mineral	N/A	N/A

Did you know?

Over the plan period sand and gravel extraction in Nottinghamshire. will use up to 800 hectares of land - the equivalent of **1500 football pitches** the size of Wembley.

Did you know?

Over the Plan period to 2030 around 110 million tonnes of minerals will be extracted in Nottinghamshire.

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