Nottinghamshire County Council

Minerals Local Plan Consultation

27 January - 30 March 2012

You use 10 tonnes of minerals every year

where does it all come from and at what cost?


BRICK CLAY
COAL
GRAVEL
LIMESTONE

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 worked and what sort of environmental standards should be in place.

Our current Minerals Local Plan is becoming out of date and we are now working on preparing a new plan to replace it. This will look ahead to 2030.

This consultation paper marks the first but very important public consultation stage in preparing a new plan. It sets out all the main issues that are expected to arise between now and 2030 and what reasonable options we think exist to meet them. As you will see in this paper there are plenty of issues to consider including the possibility of new minerals being worked, such as shale gas and industrial dolomite.

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 that mineral extraction proposals often affect.

I look forward to your response.

Councillor Richard Butler
Cabinet Member for
Environment and Sustainability

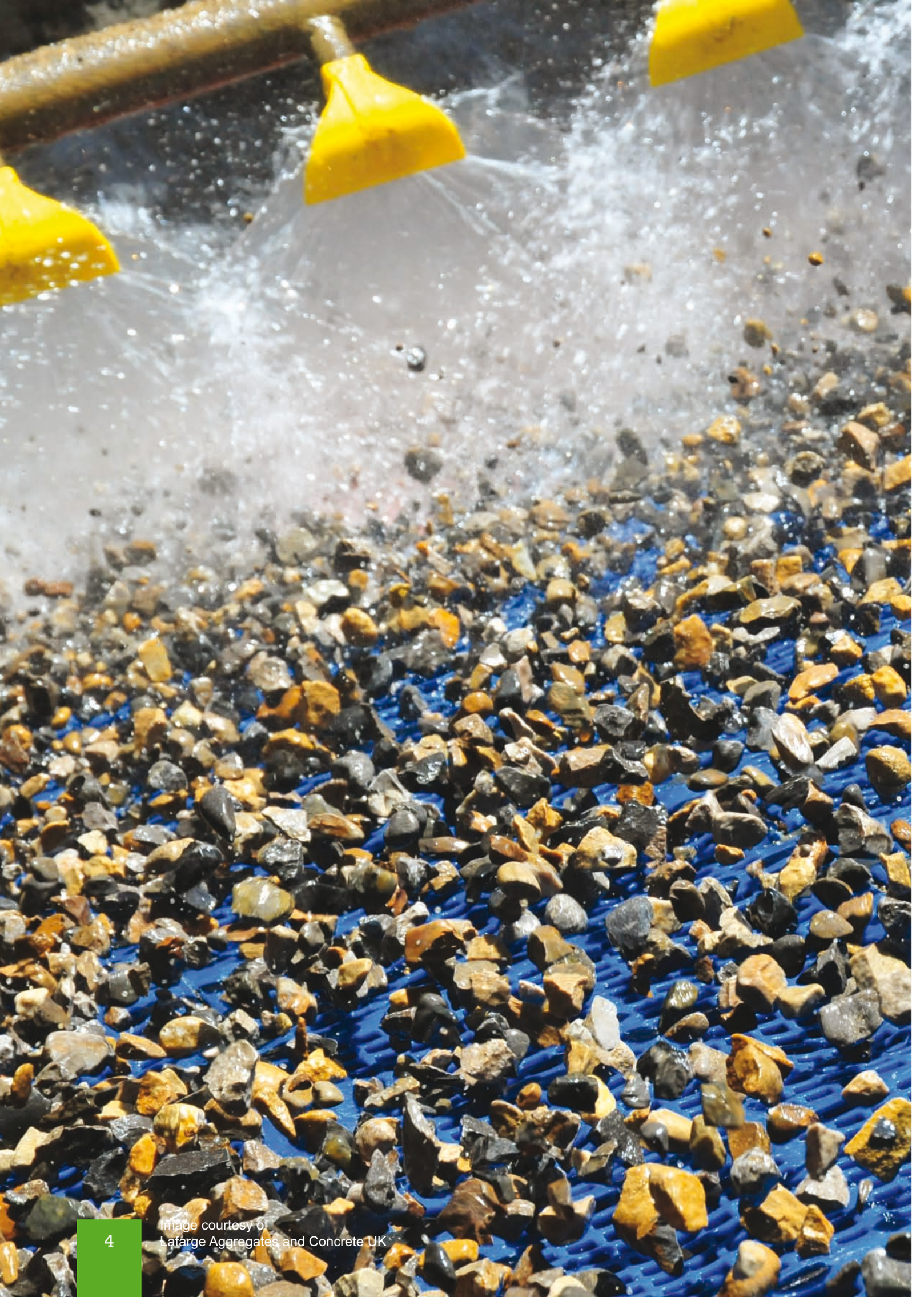

Image courtesy of
Lafarge Aggregates and Concrete UK

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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.

Did you know?

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

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, coal bed methane 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 consultation exercise is the first but critical stage in preparing a new Plan which will cover the period up to 2030.

Have your say

Your views are critical to the success of the plan. The purpose of this consultation exercise is to set out the main issues expected to arise during the plan period and to explore what reasonable options exist to resolve them. 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 open for comments until **30th March 2012**. To help you we have included some specific questions throughout this document. You can answer one or all of these, but feel free to comment on anything else you think is relevant.

See "contact us" section on page 9 for how to get in touch with us.

What happens next?

At the end of this consultation exercise we will consider all comments received and decide which options should go forward into the new plan. You will then be able to comment on the preferred approach and tell us what you think before a final decision is made about what will go into the draft Plan. A summary of all of the main stages the plan has to go through before it can be adopted is set out in the next section.

Want more information?

This consultation paper provides a summary of the issues and options. This may be sufficient for your purposes, but for a fuller picture we have prepared a range of background papers which set out in detail the particular issues faced by each mineral and some other key topic areas. There are also a number of technical reports.

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

Technical Reports

- Sustainability Appraisal – scoping report
- Strategic Flood Risk Assessment
- Habitats Regulations Assessment

All of these documents are available on our website or by contacting us as opposite.

Image courtesy of
Lafarge Aggregates and Concrete UK

Contact us

Online: www.nottinghamshire.gov.uk/minerals

Email: development.planning@nottscc.gov.uk

By post:

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By Phone: 08449 80 80 80 (customer contact centre)

Please ensure that we receive your comments by 30th March 2012

Alternative formats

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

Many thanks to all those who supplied photos for use in this document.

All maps in this document are sourced from: 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

Image courtesy of
Hanson Heidelberg Cement Group

Image courtesy of
John Smith/ Notts. Wildlife Trust

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.

Scope of the new Minerals Local Plan

The new Minerals Local Plan will set out our overall vision, objectives and broad policies for future minerals provision within the administrative County of Nottinghamshire. Its over-arching theme is the promotion of sustainable development.

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.

In order to achieve this, the Plan will identify individual sites or broad areas for extraction. The exact process of how this should be done has yet to be decided and this consultation will be used to test opinion and gather evidence.

The new Plan will also contain a number of development management policies that will set out the environmental and other standards that all new minerals development proposals should comply with. In response to new national guidance these policies are likely to be shorter and simpler than those contained in the current Minerals Local Plan.

A rare Bittern attracted to new habitat at Langford Lowfields Quarry. Image courtesy of RSPB

Image courtesy of Lafarge Aggregates and Concrete UK

How will the Plan be prepared?

The preparation of the new 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.
Responses to this stage will help decide which options to take forward.

Preferred approach

Having looked at all the options, we will consult on those that we think provide the most suitable solution. This is your chance to 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.

Image courtesy of Brett Aggregates.

Setting the overall context for the Plan

To plan effectively for future minerals development, we need to have a good understanding of our current situation and what is likely to change over the next 15 years. As part of this, we are developing a 'spatial portrait' of Nottinghamshire, setting out the key environmental, geological, geographic, social and economic influences found in the County. We have included possible text for this spatial portrait but there may be other things that you feel should be included – if so please tell us what you think.

A general overview of Nottinghamshire: a spatial portrait

Key characteristics

Nottinghamshire is well known for its historic past, linked to tales of Robin Hood and its industrial heritage based on textiles and coal. It is also ambitious for the future with a growing population of over one million people (including the City of Nottingham) and has a diverse and expanding economy which will drive a long term demand for mineral resources.

Around two thirds of the population live in, or around, Nottingham which is a major centre for employment, retail and tourism. The remainder live in, or close, to the other main towns of Mansfield, Kirkby in Ashfield, Sutton in Ashfield, Hucknall, Worksop, Newark and Retford. Outside these urban areas, the rest of the County is largely rural with scattered small villages, farmland, woodland and commercial forestry.

The County's landscape is characterised by rich rolling farmlands to the south, with a central belt of mixed woodland and farmland, giving way to heathland in the north and open, flat agricultural landscapes dominated by the River Trent to the east. Nottinghamshire also supports a wide network of important sites for nature conservation, the most important focused within Sherwood Forest, near Edwinstowe. This includes a Special Area of Conservation and possible future Special Protection Area, both of which hold international status.

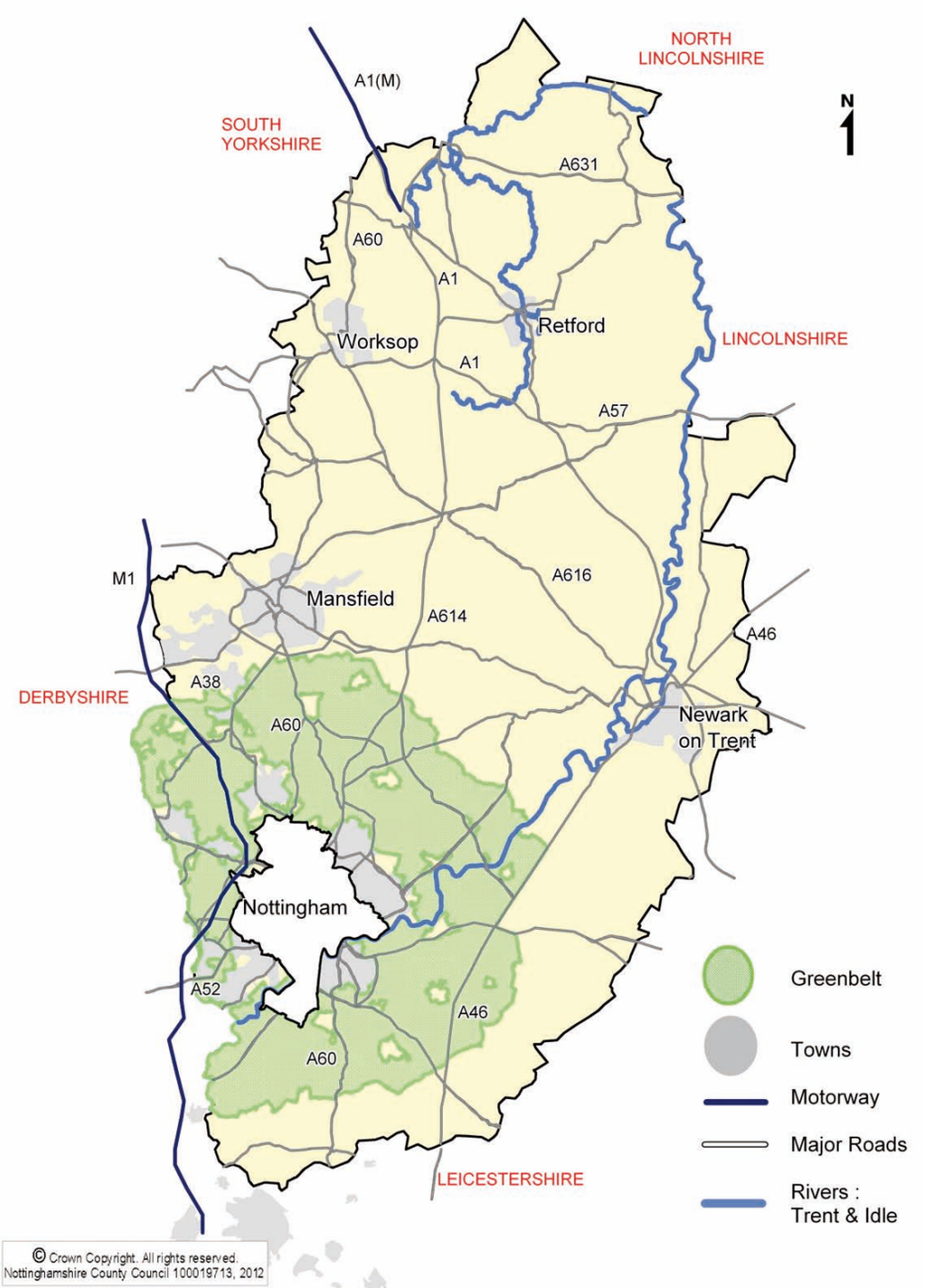
However the overall quality of our natural environment has suffered in the past from industry and other development pressures and there has been a decline in biodiversity, with losses of ancient woodland, heathland, species-rich grassland, hedgerow and wetland habitats, as well as the species that these habitats support.

Road and rail links to the rest of the UK are generally good especially via the main north-south routes of the M1, A1 and direct rail links to London from Newark and Nottingham. Works to widen sections of the A46 will also improve access to Lincoln and Leicester. East – West links are not currently as good although they have improved in recent times with the completion of the A617 near Mansfield and could improve further with the widening of the A453.

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 1: **A spatial portrait of Nottinghamshire**



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 the future. However, there are also wide inequalities in the rates of employment and income across the County, most notably in the former mining areas to the north and west. This is also often reflected in similar inequalities in health, education and skills.

Mansfield, Worksop and Newark are important centres for warehousing, distribution whilst service, technology and research based industries tend to cluster around Nottingham. The energy industry also has a major role with four power stations along the line of the River Trent. Elsewhere, 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.

Flood risk is a major planning and environmental issue in the Trent Valley and many of its tributaries which is a significant constraint to most forms of built development. The expected impact of future climate change could result in higher winter rainfall and more extreme flood events.

Overview of Nottinghamshire's mineral resources 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 especially in the north and west. 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.

In the Erewash Valley where the coal measures are exposed, opencast or 'surface' mining has had a major role in clearing up the dereliction resulting from the closure of mines, related industries and infrastructure. These issues have now largely been resolved and no surface coal mining extraction has occurred for over 10 years, however coal resources still remain.

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.

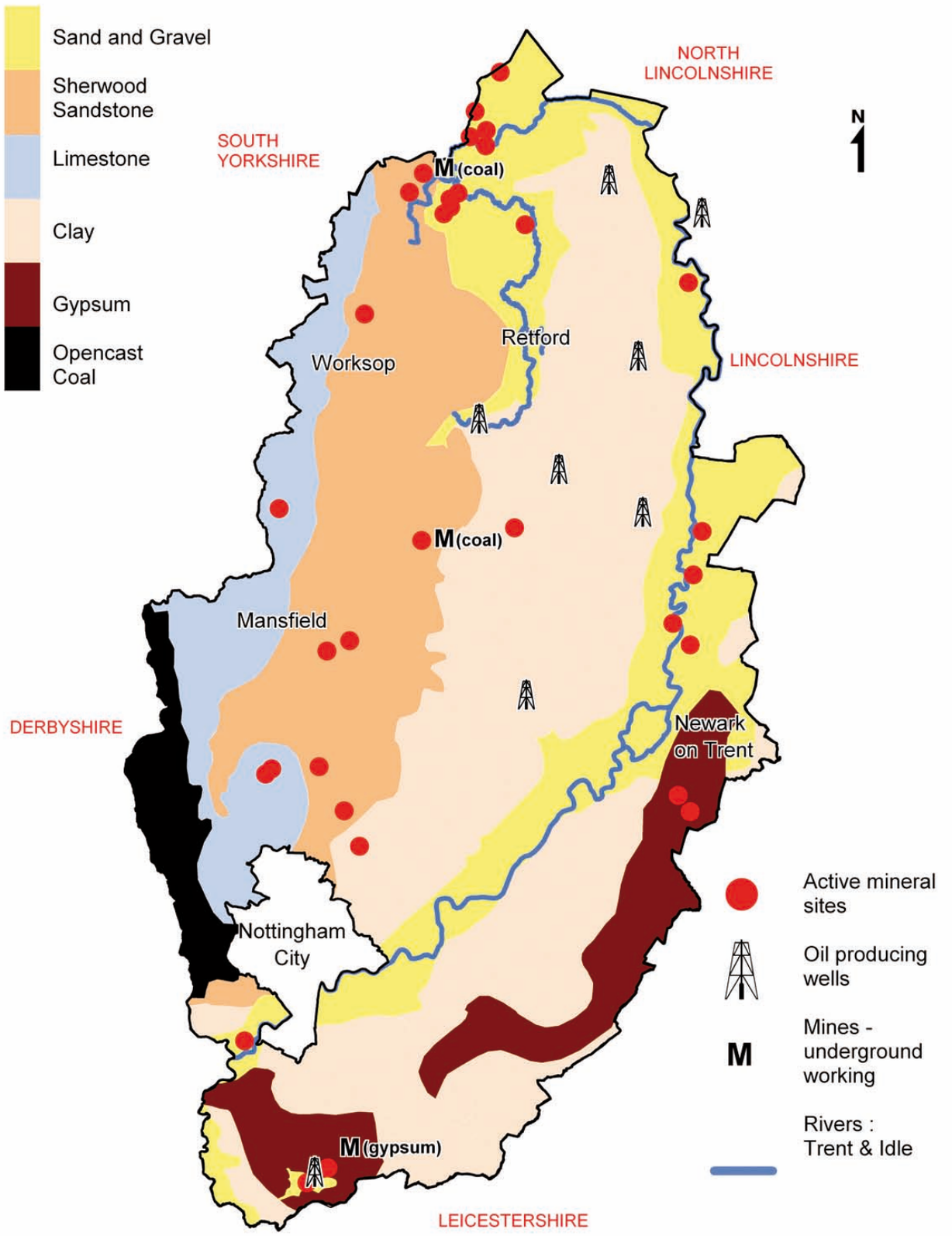
Nottinghamshire has potential mineral resources that have not been exploited but which could be in the future. These include industrial dolomite found in a small area in the north west of the County and coal bed methane and shale gas which are found across large parts of the County.

Wider issues

There is a significant movement of minerals both in and out of the County and there may be opportunities to work together with other Mineral Planning Authorities to manage the movement of minerals and minimise the environmental impacts of the developments.

Q1 Do you agree with this portrait of Nottinghamshire for the Minerals Local Plan? Should we include anything else?

Plan 2: **Nottinghamshire's mineral resources**



Key principles and creating a vision

The preparation of the new Minerals Local Plan is not starting from a blank sheet of paper. In addition to considering the context identified in the spatial portrait, the plan must take account of existing national and local policy as summarised below:

National Policy

National policy establishes the general principles about how we should provide an adequate and steady supply of minerals and how to protect the environment. Key policies for all minerals development are set out in Minerals Policy Statement 1 which includes aggregates, brick clay, building stone, oil and gas. Some other minerals such as coal and silica sand also have their own policy guidance.

The main planning policy applicable to all development is set out in Planning Policy Statement 1 and its supplement. These set out how we should move towards sustainable development and, in particular, development that creates lower carbon emissions and which is resilient to climate change. There is also a range of other policy notes on specific issues such as the historic environment, nature conservation and flood risk.

All of this is, however, subject to fundamental reforms set out in the new draft 'National Planning Policy Framework' published in July 2011. This proposes a significant reduction in the amount of policy we have to follow. Thousands of pages of existing policy contained in a wide range of planning and minerals policy notes and circulars could be distilled down to a single document perhaps no more than fifty pages long. For minerals the main effect of the proposed changes will be the removal of a lot of existing detail rather than to alter basic principles.

The final content of the new National Planning Policy Framework will not be known before April 2012. Although too late for this consultation exercise, it should be available well before the new Minerals Local Plan is drafted. This consultation exercise therefore bases its assumptions on current national policy, but looks at the implications of the proposed new policies where this differs.

Local Policy

Local policy includes the County Council's Sustainable Community Strategy and Strategic Plan, Local Transport Plans and the District Councils' Local Plans. The Plan must also consider mineral and other plans produced by adjacent authorities to ensure compatibility across administrative boundaries.

The Sustainable Community Strategy and Strategic Plan share an overall vision of a County that is 'proud of its past and ambitious for its future'. The objectives for achieving this include:

- 'a greener Nottinghamshire';
- 'a more prosperous Nottinghamshire'; and
- 'making Nottinghamshire's communities stronger'.

For the Minerals Local Plan this will mean upholding strong environmental principles that protect and enhance the environment, ensuring that the minerals industry contributes effectively to the local economy and engaging with and supporting communities affected by minerals development.

Our Vision

The new Plan will be guided by an overall vision setting out how the minerals industry can continue to provide the raw materials we all need in the most sustainable way. We have therefore set out a proposed vision statement below. This has been developed in light of the context set out above, but we will continue to develop this vision with stakeholders and the public during the various stages of consultation.

Vision:

Over the plan period Nottinghamshire will continue to provide minerals to meet its reasonable share of local and national needs. Proven mineral reserves will be identified, and safeguarded against other development and their consumption minimised by promoting the use of secondary and recycled minerals. Mineral sites will be worked in a way which minimises the impact on local communities and climate change, and reclaimed in a way that seeks to maintain and significantly enhance the County's diverse environment and biodiversity, to deliver a better future for Nottinghamshire.

Q2 Do you agree with the vision - are there other things we should include?

Image courtesy of
Lafarge Aggregates and Concrete UK

How will we deliver the vision?

For the Local Plan to work it must be deliverable. We need to have clear goals for what we want to achieve and be able to measure the effectiveness of our future policies. To do this we have developed the following local objectives. Striving to meet these objectives will help to implement the vision over the plan period:

Minerals provision

1. Ensure an adequate supply of minerals is provided over the plan period to meet local and national needs;
2. Minimise the consumption of primary aggregates by encouraging the use of alternatives from secondary and recycled sources;
3. Minimise the transport impact of minerals by promoting sites close to main markets and avoiding long distance road transport of bulk minerals where possible. Barge transport of sand and gravel along the Trent Valley will be encouraged.

Social and environmental issues

4. Maximise biodiversity gain through mineral reclamation 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;
5. Give priority to minerals development that will provide long term enhancements to landscape character and which avoids damaging the highest quality landscapes;
6. Ensure archaeological remains and their settings are adequately protected or recorded. Make building stone provision to help conserve the historic built environment and local distinctiveness;
7. Minimise the impact of mineral developments on climate change by encouraging efficient ways of working including reductions in transport and onsite machinery emissions;
8. Reduce existing and future increased flood risks linked to climate change by good quarry design and location of plant, particularly for quarries in the Trent Valley flood plain;
9. Give priority to minerals developments that will protect the best and most versatile agricultural land.

Development management policies

10. Ensure minerals sites are worked and restored in a way which minimises the impact on the environment and local communities.

Minerals safeguarding

11. Safeguard proven mineral resources from unnecessary sterilisation.

Q3 Are the above objectives appropriate? Are there others we should consider?

The remainder of this paper looks at the issues and options for delivering these objectives, beginning with minerals provision.

Minerals provision

This section looks at the issues and options surrounding future provision of each mineral found in Nottinghamshire. It summarises the key issues, but further information can be found by looking at the relevant background paper. We have included questions to help focus comments but please feel free to respond on any other areas as necessary.

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.

Approaches to making mineral provision

Minerals provision can be made in a number of ways depending largely on the number of sites available and the type of mineral. Where there is a limited choice then it can be appropriate to allocate specific sites with precise boundaries. Where there is more choice or less certainty of development coming forward broad 'areas of search' may be applied. In some cases it may only be possible to apply criteria based policies and for surface coal mining and other energy minerals constraint areas can be the preferred option.

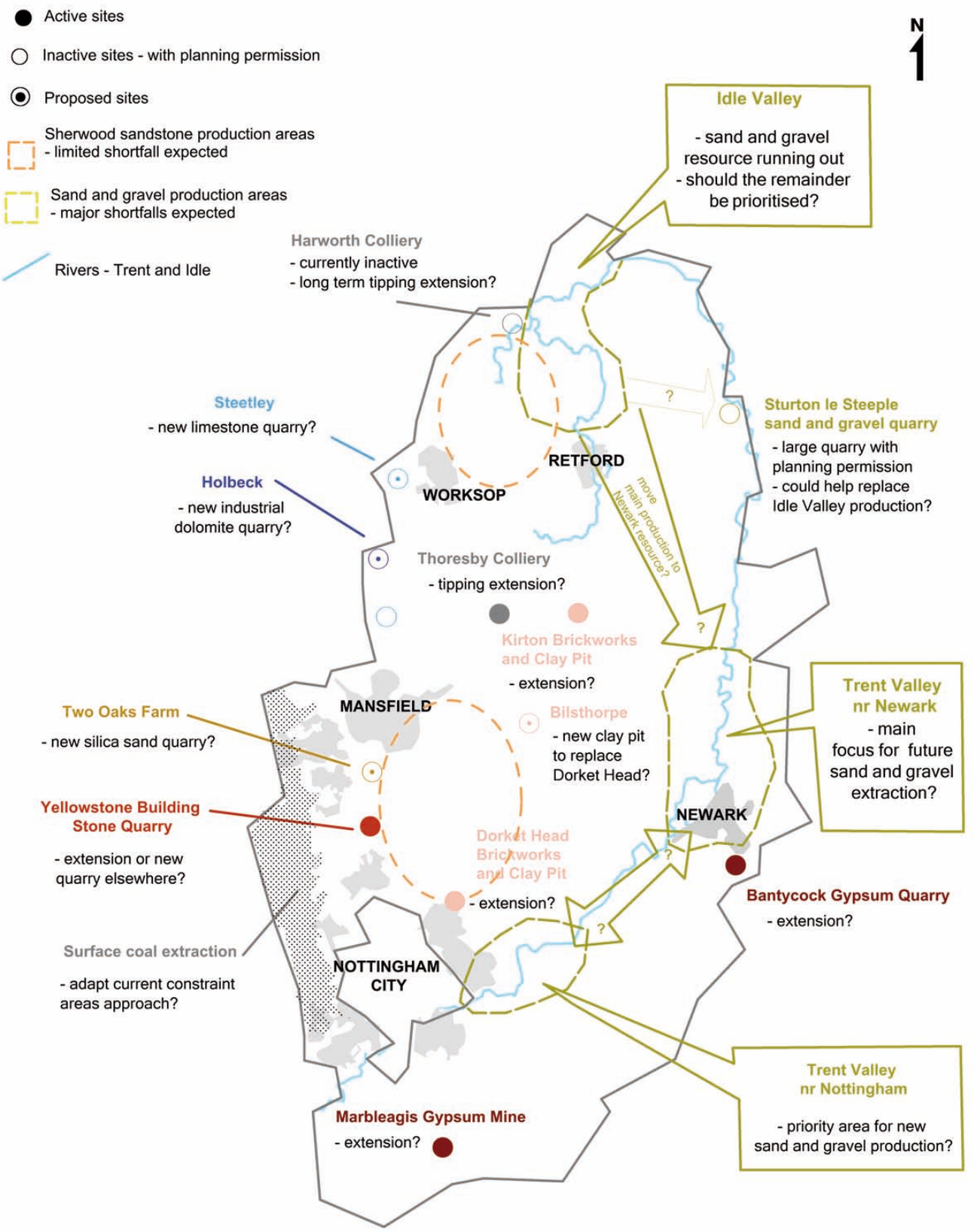
The current Minerals Local Plan relies on all of the above approaches but more recent guidance advises that the Local Plans should limit allocations to strategic sites only. If non-strategic sites are to be allocated this should normally be done within a separate site specific document. This reflects the more strategic nature of Local Plans with the option to contain other proposals in a separate plan. Previously this was not possible. The latest guidance may change again when the new National Planning Policy Framework comes into force in mid 2012. This is likely to state that Plans should set out the opportunities for development and give clear guidance on what will or will not be permitted and where, including the allocation of sites. Importantly it may also state that further development plan documents such as a site specific document should only be used where local circumstances can justify this.

In the context of this Plan a 'strategic site' is taken to be one where the strategy of the Plan would fail if it did not go ahead. This situation will tend to apply to minerals where there is very little if any choice about where future extraction is possible. For minerals where there is a lot of choice then the need to allocate sites in the local plan is weaker in the sense that no individual site, even if large, is likely to be strategic. This is because if it fails reasonable alternative options will exist. Plan 3 shows the location of possible strategic sites and the issues we face over the plan period. The issues highlighted are discussed in more detail later in this document.

No firm decisions have been made about how provision should be made for every mineral, but the new Plan will have to rely on a number of approaches due to the variety of minerals and different levels of certainty. On the evidence we have to date, it is not proposed to allocate sand and gravel and Sherwood Sandstone sites in the Plan due to the number of options known to exist and the overall abundance of these resources. Site allocations if necessary are proposed to be set out in a separate plan to follow. For other minerals where the choice is more limited such as brick clay and industrial dolomite, specific sites are considered, but this may not necessarily lead to a site being allocated – much will depend on the outcome of this consultation exercise and what is contained in the new national policy guidance.

Q4 Do you have any views on the principles of how provision should be made?

Plan 3: **Possible extraction areas and the issues faced over the plan period.**

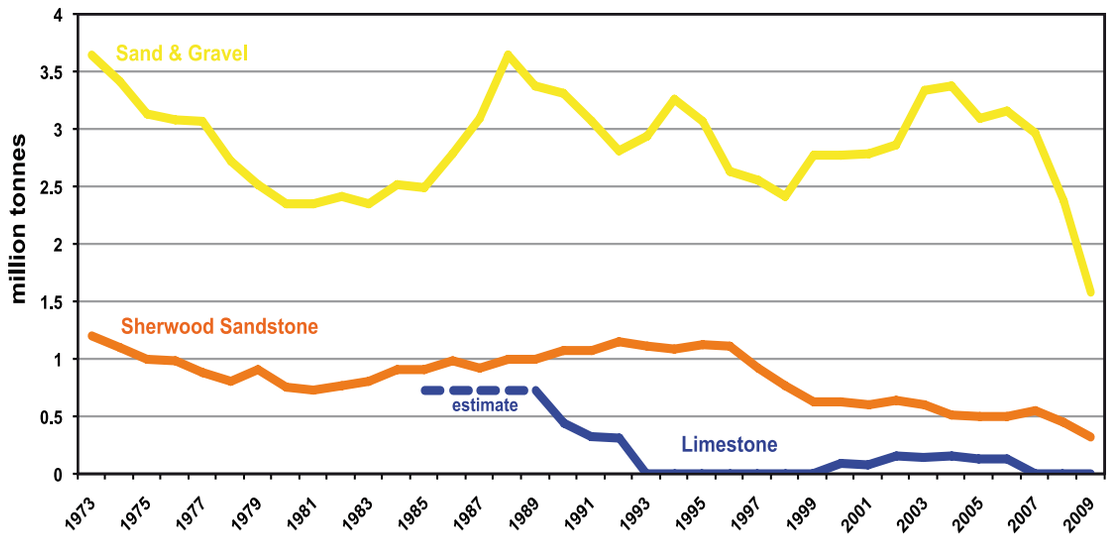


Aggregate minerals – estimating future demand

Aggregates account for around 90% of minerals used in construction. In England alone nearly a quarter of a billion tonnes are consumed every year and the latest Government forecast suggests that this level of consumption will persist until at least 2020. About a quarter of national consumption comes from 'alternative' sources such as recycled demolition waste and power station ash but the bulk still comprises 'primary aggregates' such as sand and gravel, limestone and granite which have to be dug out of the ground. Not surprisingly sustaining this level of demand raises major planning and environmental issues for many parts of the country and Nottinghamshire, which is a major aggregate producing area, is no exception.

Three primary aggregate resources are worked in the County – sand and gravel, Sherwood Sandstone and Magnesian Limestone. Figure 1 below shows production trends since records began in 1973.

Figure 1: **Nottinghamshire primary aggregate production record 1973-2009**



Source: East Midlands Regional Aggregates Working Party

Nottinghamshire provides around 30% of regional sand and gravel production most of which comes from the Trent and the 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 but in much smaller quantities. Nottinghamshire's limestone production is, by regional standards, tiny – just 0.1% of production in the East Midlands which reflects the County's limited resources.

The recent decline in production illustrated in Figure 1 reflects the impact the current economic downturn has had on the construction industry which has seen aggregate production fall to record lows.

National Policy on aggregate provision - demand forecasting

National policy requires each mineral planning authority to provide its reasonable share of regional aggregate production and to maintain a minimum 'landbank' of permitted reserves at any one time. For sand and gravel the minimum landbank is 7 years, for crushed rock 10 years.

In order to determine what a reasonable share (known as the 'apportionment') is, the Government issues national and regional demand forecasts. These set out how much of each type of aggregate every region is expected to provide over a 16 year period – this being the limit to which realistic forecasting is considered possible. The latest forecasts were issued in June 2009 and cover the period 2005-2020. Details of Nottinghamshire's proposed share based on this forecast are shown in Table 1.

Table 1: **Nottinghamshire's proposed annual apportionment** (million tonnes)

	Proposed annual apportionment
Alluvial Sand and gravel	3.25
Sherwood Sandstone	0.57
Limestone (crushed rock)	0.10

Notes:
- Some figures are rounded
- Alluvial/Sherwood sandstone sub-division Nottinghamshire County Council based

To become policy the new apportionment figures must be tested via the preparation of the Minerals Local Plan, so this consultation exercise provides the main opportunity to do this.
The implications of meeting the new figures and alternative options are considered below:

What will the shortfalls be?

To meet the proposed new level of demand, Nottinghamshire will need to provide over 80 million tonnes of primary aggregates to sustain extraction to the end of the plan period (2030). When existing permitted reserves are deducted this leaves a shortfall of over 46 million tonnes of alluvial sand and gravel and 3 million tonnes of Sherwood Sandstone. There is no shortfall for limestone. Details are shown in Table 2.

Table 2: **Nottinghamshire – estimating future shortfalls to 2030** (Million tonnes)

Mineral	Proposed Annual provision	Proposed provision 2010 - 2030 inclusive (21 years)	Permitted reserves (at 31 Dec 2009)	Shortfall at end of plan period (31 Dec 2030)
Alluvial sand & gravel	3.25	68.25	21.61	46.64
Sherwood Sandstone	0.57	11.97	9.03	2.94
Limestone (crushed rock)	0.10	2.10	3.30	0

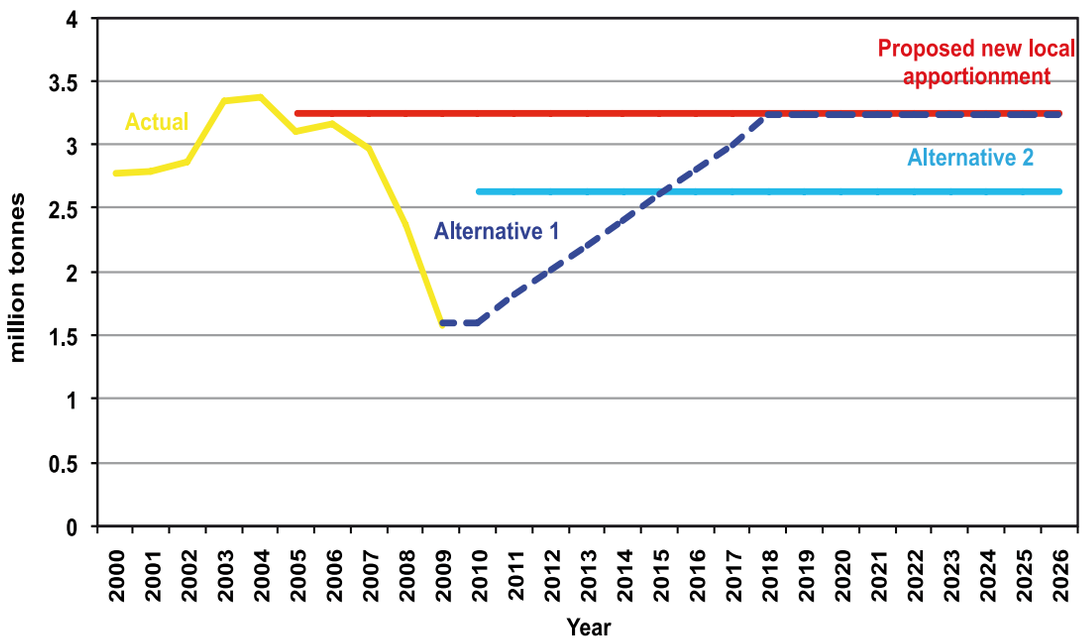
As the plan period extends well beyond the forecast figure end date of 2020 it has been assumed that production will continue at the same rate until 2030. Although speculative this seems the most robust way of assessing longer term demand, but the assumptions made must be treated with caution.

Is this forecast robust – what are the alternatives?

The huge shortfalls in reserves of alluvial sand and gravel make it especially important to ensure the proposed new forecast figure is realistic. Different assumptions could significantly affect the amount of tonnage that needs to be permitted and possibly how many new quarries might be needed and when.

Previous forecasts have often proved to be poor indicators of average production and the proposed new figures for alluvial sand and gravel are now seriously out of line with current production (see Figure 2). This suggests that alternative forecast options that take this into account should be considered.

Figure 2: **Nottinghamshire's alluvial sand and gravel future provision – alternative projections**



Alternative assumptions must take account of the fact that the new Minerals Local Plan has to take a long term view and not be too influenced by short term economic trends that often depart from what might be considered 'normal'- or at least 'average'. In this context the new national forecast could itself be considered out of date as it was prepared before the full extent of the ongoing recession was realised. Against this background two possible alternative views on estimating future demand exist. Both options focus on alluvial sand and gravel provision due to the potential scale of the shortfall.

For Sherwood Sandstone and limestone the proposed new demand figures are much less of an issue even though they are also out of line with actual production. Applying the following alternative models to these minerals is unlikely to make any material difference to what will need to be provided for on the ground.

Image courtesy of
Lafarge Aggregates and Concrete UK

Alternative forecast 1 – assume the economy bounces back

The first alternative assumes that demand will start to recover in the very near future and climb back to the forecast level. If, in the example shown in Figure 2, production increases at a rate of 200,000 tonnes year on year then the local apportionment figure would be reached by around 2018.

In this example, the overall requirements for sand and gravel would be reduced by around 7 million tonnes from 46 million tonnes to 39 million tonnes. The merit of this approach is that it reconciles the huge gap between current and forecast production and means that higher levels of forecast production only need to be planned for in the longer term.

Alternative forecast 2 – assume the economy stays flat

If alternative 1 is considered too optimistic, the only other simple alternative would be to abandon the national forecast altogether and base demand on recent average production. To have credibility there needs to be very good evidence that the latest forecast is so flawed that it can be disregarded. Without such evidence this alternative is unlikely to be any more robust and risks making under-provision if the economy does recover. The example in Figure 2 is based on the 5 year period 2005-2009. This would result in a total shortfall of 33 million tonnes over the plan period.

Q5 Do you consider that the proposed new apportionments should be provided for in full – or does the current economic situation favour any of the alternative approaches suggested? Please indicate if your views vary between the three main types of aggregate.

Aggregates - alluvial sand and gravel

Based on the demand estimates set out in the previous section, the new Minerals Local Plan may need to provide over 46 million tonnes of new sand and gravel reserves in order to sustain production until 2030 - and that does not allow for a minimum recommended landbank of permitted reserves to exist at that time. 46 million tonnes corresponds to around 800 hectares (the equivalent of approximately 1500 football pitches the size of Wembley) of mineral bearing land. Even if a more pessimistic view is taken about future demand, a major shortfall in provision looks inevitable and how we meet it is likely to present some of the most critical issues for the Plan to resolve.

In geological resource terms there is no shortfall of mineral and the industry has enough mineral bearing land under its control to meet any shortfall likely to arise during the plan period. The key issues are to decide where in broad terms new areas of mineral extraction should be located and what environmental and economic issues should shape future sand and gravel extraction in Nottinghamshire? This section looks at the options.

Historically sand and gravel production has been concentrated in the Trent Valley near Nottingham, to the north of Newark and in the Idle Valley (see Plan 4). This pattern has developed at least in part to provide quarries close to the main markets as sand and gravel is a low cost bulk mineral and haulage is a very significant element of its cost. Anything from a third to a half of the County's production supplies the Yorkshire and Humberside markets which the Idle Valley is well placed to serve. Demand for sand and gravel in the Nottingham area has probably promoted the development of quarries near the City. Quarries near Newark are relatively accessible to Nottingham, the Mansfield and Ashfield areas and Yorkshire which receives some mineral by barge.

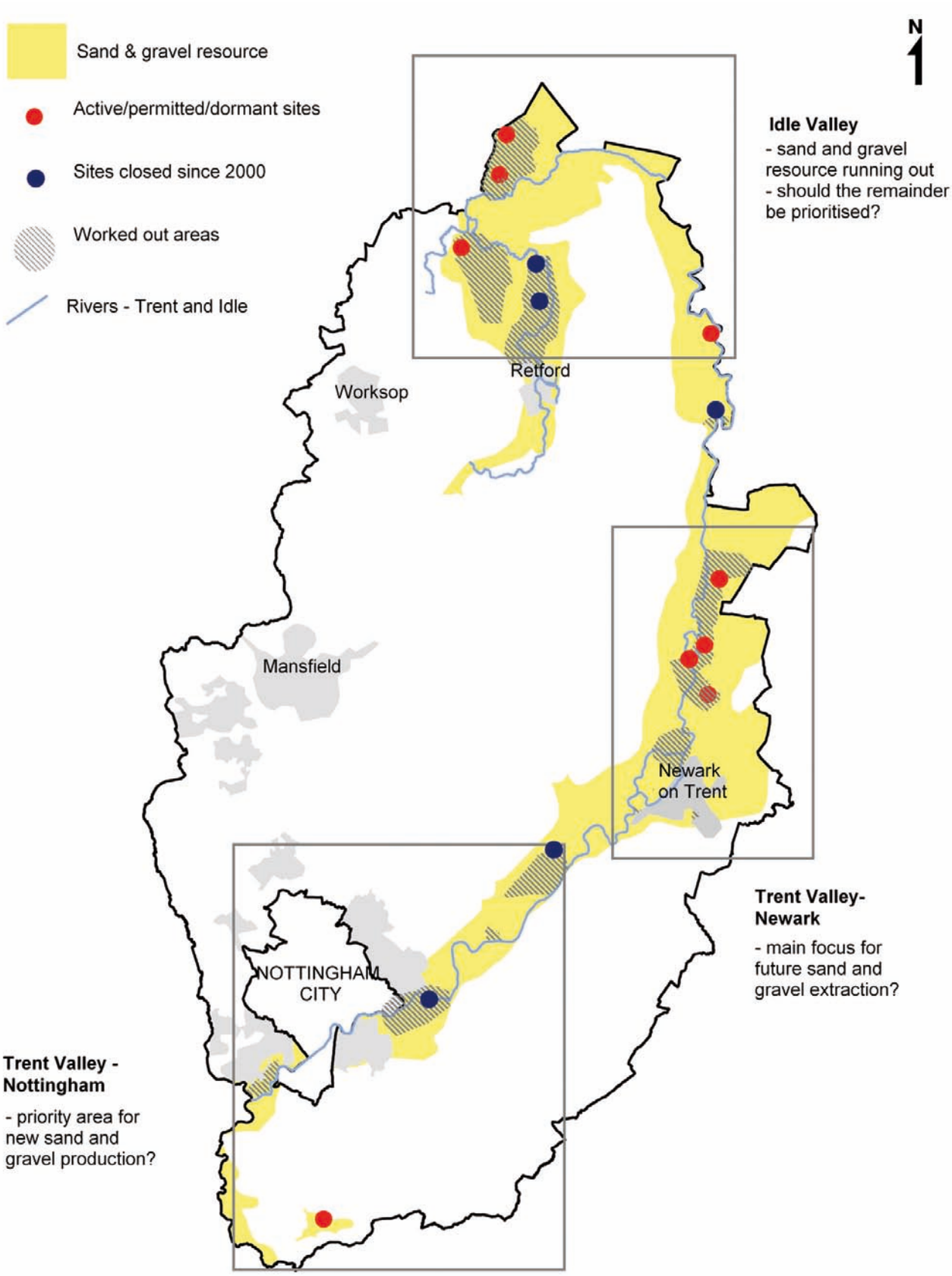
These historic patterns are however starting to break down. The Idle Valley is substantially exhausted - two major quarries have recently closed and options for new reserves are very limited. Sand and gravel production near Nottingham has also seen a major decline following the closure of one major quarry and a failure to replace it due to planning problems. Resource depletion is not such an issue here but potential options are limited. As a result production is now more focused in the Newark area and it is only the impact of the economic downturn that has perhaps masked the extent of these changes.

Issues and options

National policy has a general presumption in favour of quarry extensions as this usually results in less environmental disruption and makes best use of resources. Whilst any strategy needs to follow this guidance, extensions can only provide a partial solution. New quarries will be essential if demand is to be met but how many and when will depend on what view is taken on future demand as discussed earlier.

By far the greatest capacity both to extend and develop new quarries exists in the Trent Valley around Newark. It looks inevitable that at some stage this area will provide an increasing share of the County's future sand and gravel production. There is however merit in trying to sustain the current spread of quarries to minimise haulage distances and road traffic. This favours giving priority in principle to establishing new production capacity near Nottingham and promoting what is left of the Idle Valley. The Trent Valley in north Nottinghamshire near Gainsborough will also take on an increasing role following planning permission being granted to develop a new quarry at Sturton le Steeple. However no other interest in exploiting this northernmost stretch of the valley has been expressed by the industry.

Plan 4: **Main sand and gravel production areas**



Whilst minimising haulage distance is an important consideration it is not an overriding one. If options near Nottingham or in the north of the County compare poorly in environmental terms then concentrating production near Newark could on balance offer a better solution. If so traffic impacts could be reduced by favouring sites able to use water transport to reach the more distant markets. Taking mineral by barge to Yorkshire and Humberside has a proven track record, but restrictions on barge sizes upstream of Cromwell Lock have acted against barging mineral to Nottingham.

The concentration of sand and gravel production along the Trent Valley has significant potential to impact both positively and negatively upon the distinctive biodiversity, archaeology and landscape character of this area. Therefore it is important for these issues to be considered when deciding on locations for future workings. Detail on the specific constraints and opportunities related to each issue can be found in later chapters.

Q6 Should priority be given in principle to:
a) Maintaining production in the Idle Valley and north Nottinghamshire?;
b) Establishing new production capacity near Nottingham?; or
c) Establishing new capacity near Newark that can serve Yorkshire and Humberside by water transport?

Q7 Is it economically viable to transport mineral by barge from Newark to Nottingham using smaller barges?

Q8 Do you agree that biodiversity, archaeology and landscape character are the main environmental issues that should influence the overall strategy of where future sand and gravel extraction occurs?

Reedbed and wetland restoration at worked out quarry

Aggregates - Sherwood Sandstone

The proposed forecast shortfall for Sherwood Sandstone is just 3 million tonnes. Current production is spread amongst a number of quarries worked between Nottingham and Mansfield and in the far north of the County.

Sherwood Sandstone quarries produce mostly asphalt and mortar sand. The latter can be yellow, red or grey and this can be a critical factor for quarries producing this sand. There is no comprehensive geological information about where the different grades and colours of sand are distributed within the resource which makes it impossible to identify any parts of the outcrop that are of particular commercial interest or scarcity. Sherwood Sandstone also produces silica sand which is considered separately.

Issues and options

The Industry has under its control sufficient mineral to meet the 3 million tonnes shortfall by quarry extensions. No new greenfield sites have been put forward so if any of these extensions prove to be environmentally unsuitable new sites would need to be identified. The vast extent of this resource suggests that if this situation arose then suitable options are likely to exist and come forward.

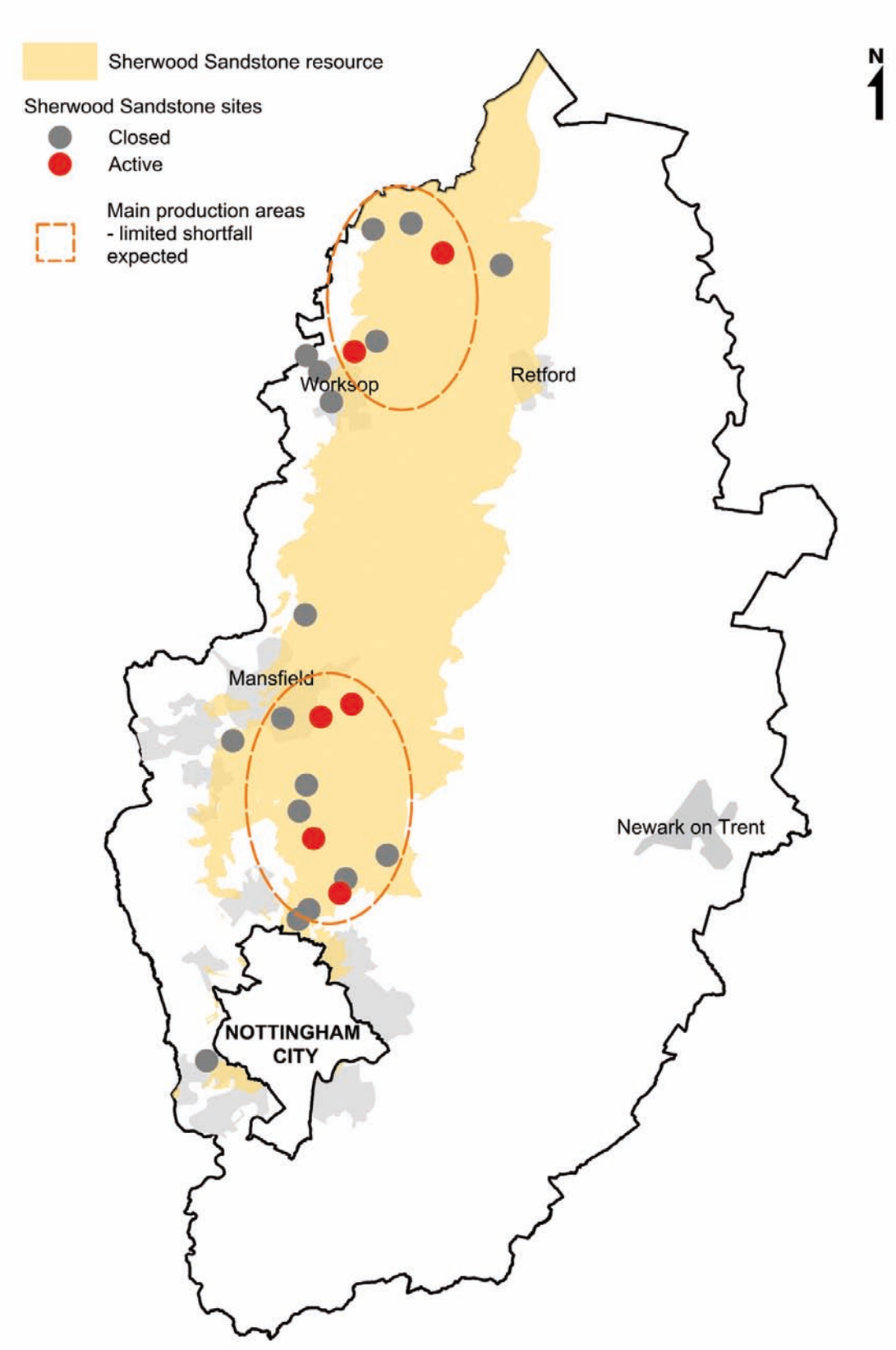
One option would be to try and maintain a reasonable geographic spread of quarries to minimise transport distances to the main markets. This could favour new local greenfield replacement capacity should an extension be unsuitable and other local quarries are unable to provide the required quantities and range of aggregate sands.

The different types of sands also suggest that the standard 7 year landbank policy approach may need to take account of this when assessing the County's ability to meet demand.

Q9 Do you agree that it is important to maintain the current broad geographical spread of sites in the County or is it the quality and grades of sand that are more important?

Q10 Do you think the landbank policy should make some allowance for the different types of sand which are not found in every quarry?

Plan 5: **Sherwood Sandstone resource and location of quarries**



Aggregates - Limestone (crushed rock)

There is no forecast shortfall for limestone provision in Nottinghamshire, so in theory there should be no issues regarding future provision to resolve. This certainly applies to Nether Langwith Quarry which is the only dedicated aggregate limestone operation in Nottinghamshire, mainly producing material for use as road sub-base. Aggregate limestone is also produced at a building stone quarry near Linby but the quantities involved are very small.

Nether Langwith Quarry serves as a satellite to a much bigger quarry at Whitwell in Derbyshire, but due to the economic downturn has been mothballed since 2007. Even if Nether Langwith Quarry resumed production in the near future, it is unlikely that any significant shortfalls would arise during the plan period. If they did a potential extension exists which, if acceptable, would easily meet any likely shortfall.

Issues and options

Whilst the re-opening of Nether Langwith Quarry raises few if any issues, the industry has put forward two proposals which, if accepted, would see limestone production in Nottinghamshire increase significantly. The justification for these proposals and the issues they raise are considered below:

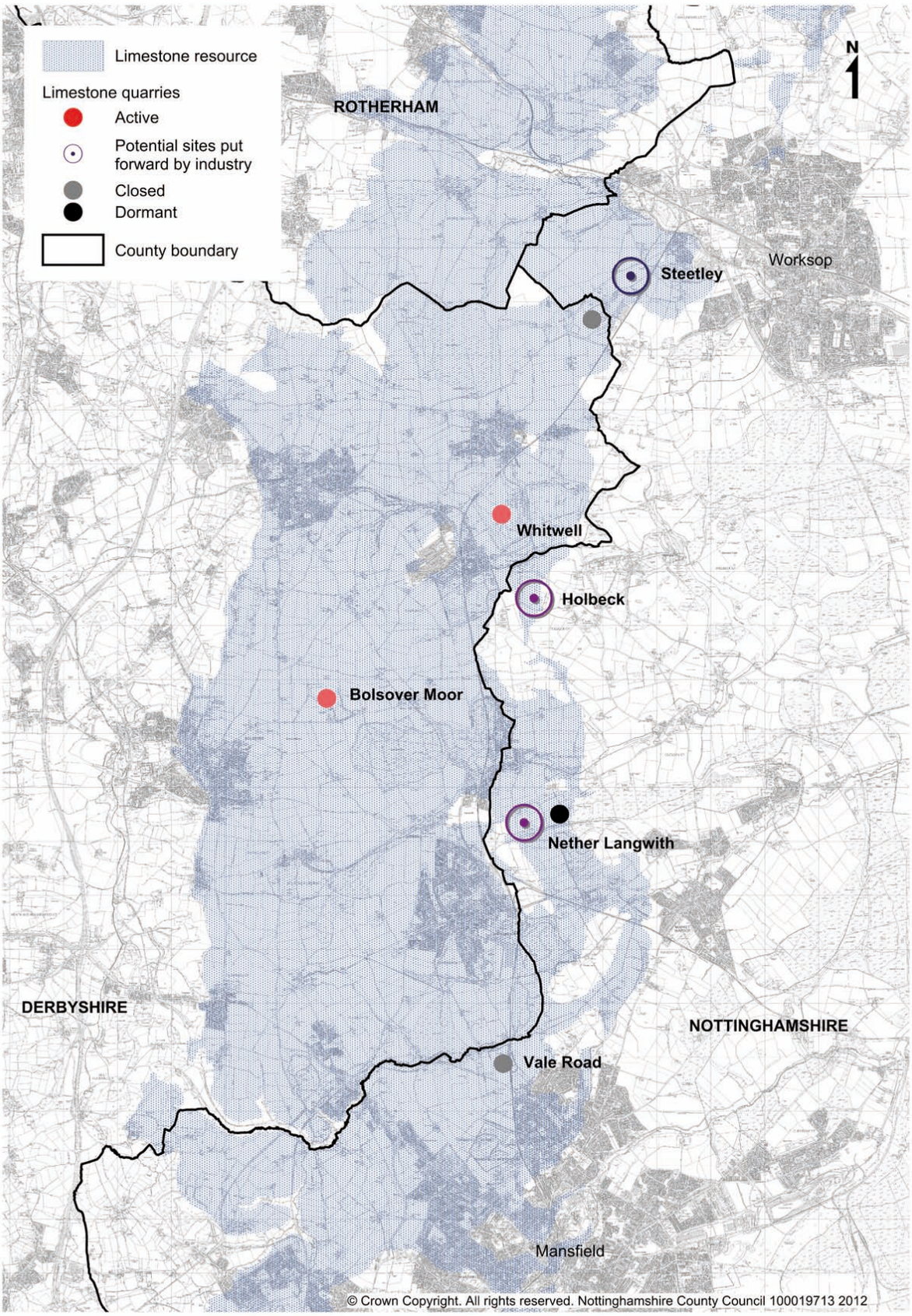
The first concerns a replacement to Whitwell Quarry in Derbyshire which is close to the Nottinghamshire boundary near Holbeck (see plan 6). This quarry is important for its industrial grade mineral which is nationally very scarce (see industrial dolomite section for details) but it also works large quantities of aggregate stone. The industrial mineral lies on top of the aggregate stone and the combined annual production has typically been around 1 million tonnes split evenly between the two minerals.

No further major extensions to Whitwell Quarry appear possible and the very restricted occurrence of the industrial mineral makes future options limited. Reserves are expected to run out in 2025. For these reasons the mineral operator is looking to develop a replacement quarry in Nottinghamshire near Holbeck. This 14 million tonne resource could supply both grades of mineral until around 2040.

The primary justification for the Holbeck proposal is to sustain production of the industrial dolomite. Permitted reserves of aggregate limestone and other rock in Derbyshire are so vast that the need to permit any more aggregate limestone either at this site or anywhere else in this general locality looks very weak. However, if extraction of the industrial dolomite is considered acceptable, then recovering the underlying aggregate stone as well, does in principle make sense in sustainability terms. The only reason not to work the aggregate mineral would be if this resulted in additional environmental impacts that were considered unacceptable or disproportionate to the benefits of its recovery.

The second proposal concerns the development of a new quarry at the former Steetley Colliery site. This 10 million tonne proposal would supply an estimated 200,000 tonnes per annum to an adjacent new concrete product manufacturing plant. The main environmental and economic benefit of this proposal is that the concrete plant can be supplied by mineral without the need to use a public highway that now occurs. This scores well in terms of sustainability and reduced carbon emissions. These benefits must, however be weighed against the lack of need in landbank terms along with any other adverse environmental impacts extraction could cause. Some mineral is also of industrial grade, but if worked for this purpose would have to be taken off site by road to be processed.

Plan 6: **Limestone resource and location of quarries**



Unless both proposals are considered unacceptable in principle, then the new Minerals Local Plan will need to contain a modified landbank policy or approach to provision that would allow either or both proposals to go ahead as exceptions to the general rule.

Q11 Do you see any reason in principle why aggregates should not be extracted at the site near Holbeck if this proposal is considered suitable for industrial dolomite extraction? (Refer to Q21 to respond to the industrial dolomite issues)

Q12 Do you consider the transport and other benefits of extracting aggregate limestone at Steetley over-ride the lack of any need to make provision for any more mineral in either Nottinghamshire or Derbyshire? (Refer to Q22 to respond to the industrial dolomite issues)

Q13 Do you have any views on how the Minerals Local Plan should consider the longer term future of Nether Langwith Quarry?

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www.portraitcollective.com/nbs

Image courtesy of
www.portraitcollective.com/nbs

Alternative aggregates

Alternative aggregates now account for an estimated 25% of national consumption of aggregates – a contribution that has risen steeply in recent years in response to a range of tax incentives. In Nottinghamshire the biggest sources of alternative aggregates are construction and demolition waste and ash from the three coal fired power stations along the Trent Valley.

River dredgings from the Trent have until recently provided a source of alternative aggregates but changes to the British Waterways dredging regime suggest this source is unlikely to be available in the foreseeable future.

Vast quantities of potential low grade aggregates exist within old colliery spoil heaps but none has been used for this purpose for many years and its economic potential looks very limited. Most spoil heaps have been reclaimed and opportunities for using this waste as an aggregate are not expected to arise during the plan period.

Issues and options

Alternative aggregates score well in sustainability terms as they utilise materials that would otherwise end up as landfill and they also reduce the need for primary minerals. This means that the new Minerals Local Plan should take a very positive approach to their use subject to environmental safeguards.

There are, however, limits on how far alternatives can substitute primary aggregates both in terms of quality and quantity. The demand forecast for primary aggregates considered earlier takes account of the expected contribution that alternative aggregates will make and at a regional level only a small increase in production is expected over the next 10 years. Most alternative aggregates are used for lower grade uses such as bulk fill and few meet the specifications required for higher grade uses.

For the new Minerals Local Plan alternative aggregates are not expected to raise any critical issues regarding new development proposals. Proposals for recycling aggregates such as construction and demolition waste are dealt with under the adopted Waste Local Plan and emerging Waste Core Strategy that will replace it.

Not all power station ash is utilised as demand does not match production. In the longer term the main risk is that ash production could decline due to new emission controls coming into effect. This could see more coal fired stations closing in the 2020s or switching to other fuels.

Q14 Do you have any evidence to indicate any significant changes in alternative aggregate production or uses over the plan period?

Q15 Do you have any views on how the Minerals Local Plan could further promote the use of alternative aggregates?

Brick clay

There are currently two brickworks and associated clay pits in the County both of which manufacture high quality facing bricks. These are found at Dorket Head near Arnold and Kirton near Ollerton.

Both pits exploit clay at the base of the Mercia Mudstone which is exposed along the western edge of the main outcrop (see Plan 7). For facing bricks the quality, texture and firing colours are critical factors and the clay is often blended, sometimes with imported clay, to achieve the desired range of products. Nearly all the mineral extracted is red firing clay, but some cream firing clay is also dug at Kirton.

Issues and options

Neither clay pit has sufficient reserves of red clay for the plan period. Permitted reserves at Dorket Head and Kirton are only adequate until 2019 and 2023 respectively so the critical issue for the new Minerals Local Plan is to assess how best to provide for the longer term. At Kirton reserves of cream firing clays are worked in a separate part of the pit and are expected to last until at least 2030.

National policy on brick clay extraction recognises that the high level of investment and ongoing maintenance justifies the provision of a 25 year landbank for each brick works. This could, however, fall to just 10 years if proposed reforms to national policy guidance are accepted.

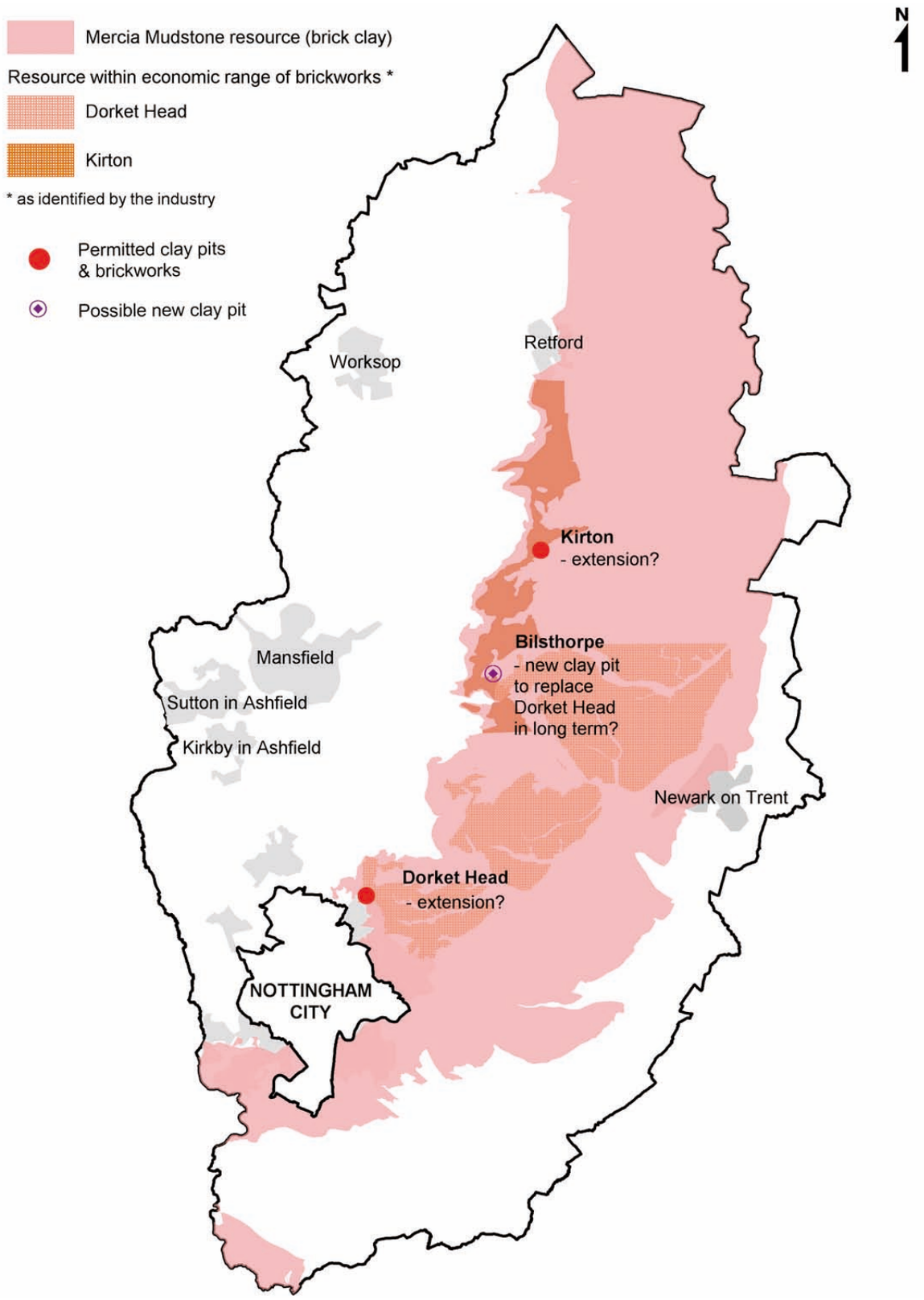
The industry has put forward extensions at both sites and one replacement quarry which in total are sufficient to meet this requirement.

Both extensions are likely to represent the limits of how far each pit could physically extend to but both raise significant environmental issues including landscape impacts and, in the case of Kirton, encroachment towards the village. The industry argues that these impacts can be kept to an acceptable level and that these extensions will allow clay to reach the brickworks via internal haulage which has both economic and environmental benefits. If either or both extensions are considered unacceptable then the only other option would be to import clay from a remote site. The proposed new quarry is located at Bilsthorpe and is seen as a longer term replacement to Dorket Head where the extension will not be adequate on its own.

Image courtesy of Tarmac Limited.

Image courtesy of Ibstock brick limited.

Plan 7: **Brick clay resource and location of clay pits and brickworks**



The current Minerals Local Plan also considers the possibility of a new additional brickworks and clay pit being established. This followed such a proposal being submitted at Bilsthorpe, in the late 1980s but which was never developed and the planning permission lapsed. It is very uncertain whether there will be a need for a new brickworks during the plan period, perhaps to replace a site outside the County.

Clay pits and landfill: In practice the biggest environmental issue often associated with clay extraction is the prospect of landfill. Clay pits provide one of the few geologically suitable opportunities for taking non-hazardous waste and landfill can in some situations provide the best long term reclamation solution. No landfill is, however, proposed within the two extensions being promoted by the industry. The situation at Bilsthorpe is less certain but would need to be clarified if this site was to be allocated in the new Minerals Local Plan.

The emerging Waste Core Strategy being prepared by the County and City Councils has to develop our future approach to waste management. This is expected to promote a major decline in the amount of waste landfilled and no new landfill sites have been identified. Permitted landfill space is, however, limited so it is quite possible that new landfill capacity will be needed.

Q16 Should the Plan identify suitable extensions and or new clay pits, or should a criteria based policy be developed to ensure an adequate supply of clay can be maintained at existing brickworks? Are you aware of any other potential clay reserves that could be considered in the plan?

Q17 If new replacement pits are needed should these be linked to a broad 'area of search'?

Q18 Should the current criteria policy approach that considers proposals for new brick works and associated clay pits be retained?

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.


CAT

Gypsum

In Nottinghamshire two distinct gypsum resources are worked. The Marbleagis drift mine at East Leake exploits a single 3 metre thick seam known as the 'Tutbury Gypsum' that supplies an associated plasterboard plant and plaster works. Bantycock Quarry near Balderton, Newark exploits the 'Newark Gypsum' which comprises a number of relatively thin seams up to 1 metre thick. The lowest seams 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. The main plaster products produced in Nottinghamshire reach much of southern and eastern England and the Midlands whilst the specialist products have national and international markets.

Since the mid-1990s national and local gypsum production has declined as much of the gypsum used in plasterboard now comprises 'desulphogypsum'. This is a by-product of flue gas desulphurisation plants that have been retrofitted at most coal fired power stations including all three stations in Nottinghamshire.

Permitted reserves at Marbleagis Mine are sufficient until at least 2020 and perhaps longer if supplies of desulphogypsum continue. In January 2012 the County Council granted planning permission to extend the mine within land near Costock, but this decision is currently subject to a possible 'call in' period by the Government as it has been treated as a departure from current Minerals Local Plan policy. This extension will extend the life of the mine by at least a further 6 years. The only other option for extending this mine is eastwards towards Wymeswold in Leicestershire.

Issues and options

The environmental impact of gypsum mining is minimal as the mineral is simply bored out by a large tunnelling machine leaving a quarter of the mineral in place to provide surface support. The main planning issue is that land that has been mined cannot be built upon and land that has been built on cannot be mined. This is because the risk of subsidence cannot be entirely ruled out.

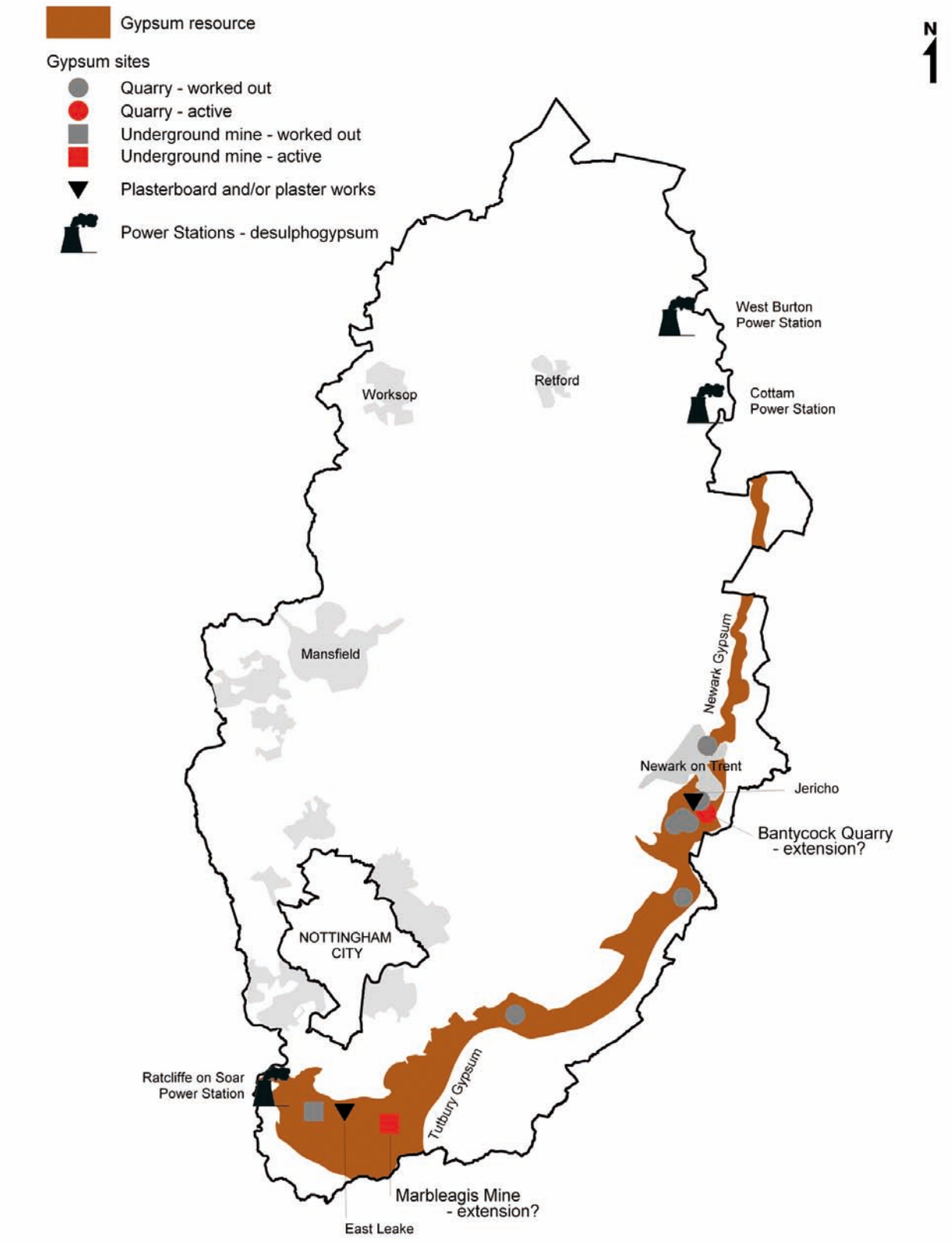
The long term future of desulphogypsum is uncertain as new emission controls due in the 2020s could see more coal fired power stations close or switch to other fuels. This adds to the need to ensure natural resources are safeguarded and made available as necessary.

Bantycock Quarry has reserves until 2027 so finding new reserves is a longer term issue for the Minerals Local Plan. Land to the south of Bantycock Quarry is already allocated in the current Minerals Local Plan and rolling this forward into the new plan remains the industry's preferred option. Other potential options are likely to exist along the outcrop which extends as a narrow belt to the north and south of Newark. The drawback with these is that any mineral worked in these areas will have to go via public highways to the Jericho plasterworks at Balderton whereas the allocated land has the option of an overland route along internal haul roads.

Gypsum quarries can be reclaimed back to their original contours and use (such as farm land) as the vast majority of excavated material is inter-seam clay and overburden. Restoration schemes vary on a site by site basis and can sometimes include void space for waste disposal. However no void space is planned at Bantycock, although this is stated as a possibility for the allocated land in the current Minerals Local Plan.

Q19 Should the new plan re-allocate the proposed extension to Bantycock Quarry that is already allocated in the existing plan, or would a broader area of search be preferable?

Plan 8: **Gypsum resource and location of quarries**



Silica sand

Silica sand is extracted from the Sherwood Sandstone resource at Ratcher Hill, Mansfield. This quarry produces special sands for a variety of industrial, construction, sporting and equestrian markets. Some aggregate sand is also produced. In operational terms the extraction of silica sand is similar to aggregate sand, the main distinction being that much larger and more sophisticated washing and processing plants are required.

Issues and options

Reserves at Ratcher Hill Quarry are not expected to last beyond 2014 and the scope for any significant extensions is very limited due to surrounding built development and other constraints. In response to this situation the mineral operator has submitted a planning application for a replacement quarry at Two Oaks Farm south of Mansfield. If permitted this 14 million tonne proposal will provide sufficient reserves for around 40 years which would be more than enough for the plan period and would satisfy the recommended 10 year landbank per quarry policy set out in national guidance.

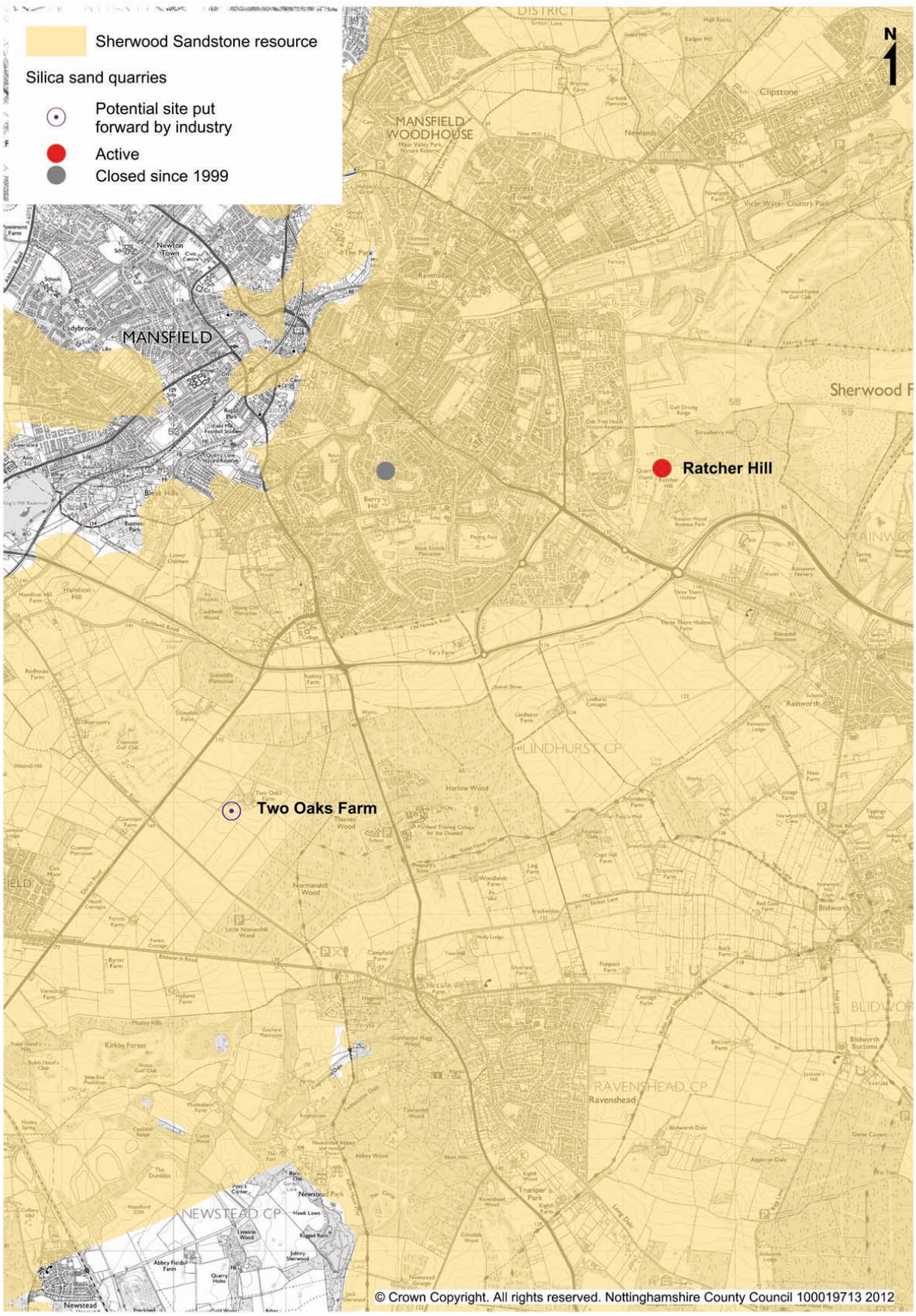
If, however, this proposal is not permitted, no alternative options are currently known to exist. The extent of the silica sand grade mineral within the Sherwood Sandstone has not been assessed but it could be significant so it is possible that an alternative proposal could come forward, albeit it may be too late to be up and running before Ratcher Hill is worked out. These circumstances suggest that retaining the existing criteria based policy may be the only reasonable option, either for dealing with the Two Oaks Farm proposal (if this remains undetermined) or for considering an alternative if that proposal was not successful. This policy simply states that new reserves of silica sand will be permitted if needed to meet an appropriate landbank provided that these do not have any unacceptable environmental impact.

Q20 Do you agree that a criteria based landbank policy for silica sand provision remains appropriate?

Image courtesy of
Mansfield Sand Co Ltd

Image courtesy of
John Smith/Wildlife Trust

Plan 9: **Silica sand resource and location of facilities**



Industrial dolomite

No industrial dolomite is currently worked in Nottinghamshire, but just across the County boundary at Whitwell in Derbyshire industrial dolomite is quarried alongside aggregate stone on a large scale. Typically around 1 million tonnes are extracted every year with the tonnage being split evenly between the industrial and aggregate mineral. The industrial dolomite feeds two on-site kilns that convert the raw dolomite in to a range of refractory and other products which are exported to 28 countries spanning 4 continents. The biggest end-user is the iron and steel industry.

The international importance of the Whitwell resource reflects the scarcity of this high quality mineral which locally occurs within the Magnesian Limestone resource that is mainly worked for aggregates. The only other comparable resource in the UK is found in Thrislington, Durham where production is focussed on supplying domestic markets.

Issues and options

Permitted reserves at Whitwell are expected to be exhausted by 2025 and options to extend the quarry within Derbyshire are very limited.

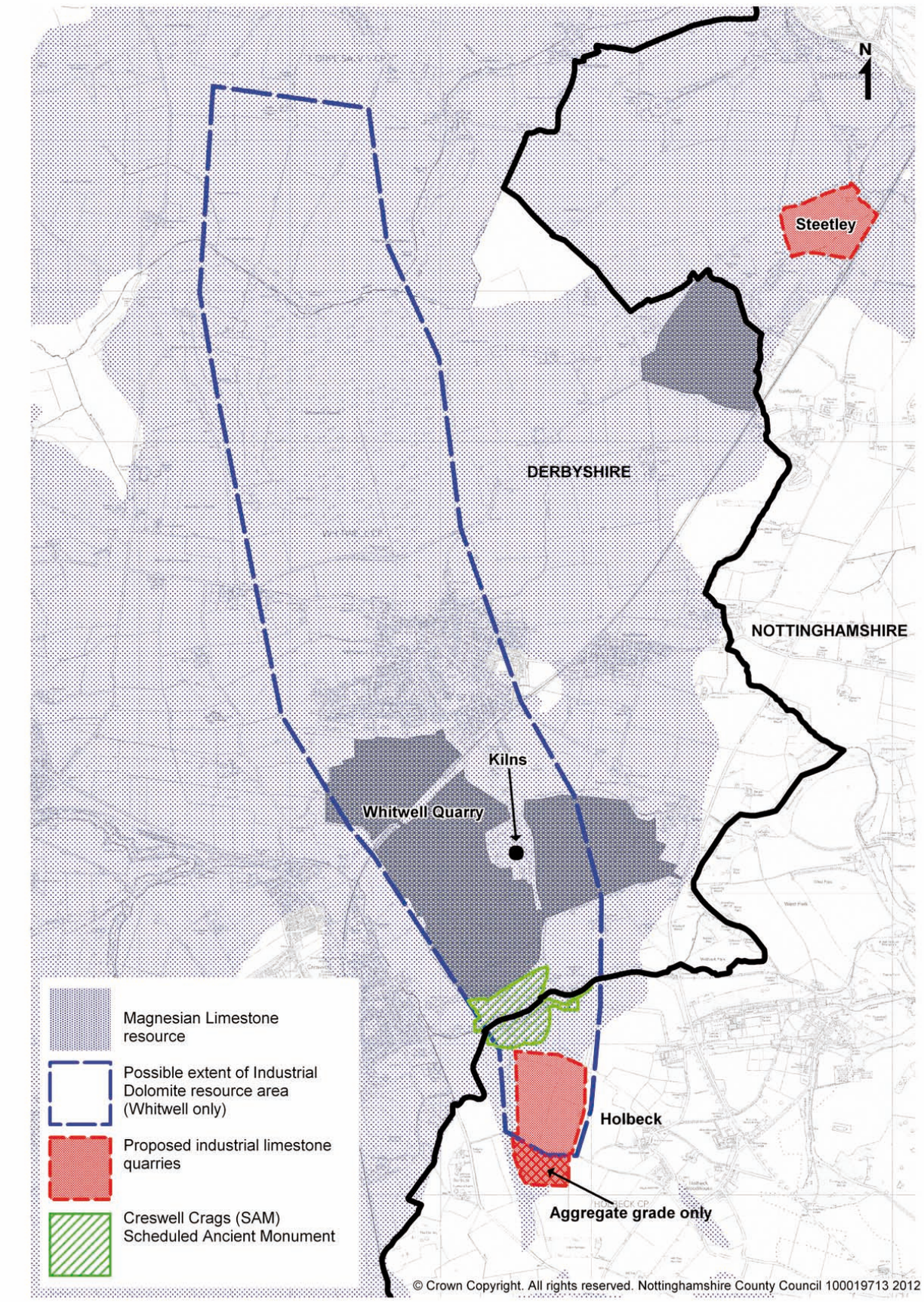
The mineral operator has put forward a replacement quarry in Nottinghamshire, near Holbeck, which occupies the southernmost limit of the high quality resource identified by the company. This proposal contains 10 million tonnes of industrial dolomite that would supply the Whitwell Kilns until around 2040. It also contains 4 million tonnes of aggregate grade mineral that is proposed to be worked as well (see aggregate limestone section for details). The main planning issues are the proximity to the Creswell Crags Scheduled Ancient Monument (and potential World Heritage site), mineral transport to the kilns and reclamation options.

A further industrial dolomite resource has been identified at Steetley which another operator is promoting primarily for its aggregate potential (again see aggregate limestone section for details). The quantity and quality of the mineral has not yet been tested in detail but it may have the potential to supplement supplies to the Whitwell Kilns so extending the life of Whitwell quarry and/or it could supply other industrial dolomite markets. The Steetley site cannot, however, be regarded as an alternative to Holbeck due to its significantly lower proposed output.

Q21 Should the Plan allocate a replacement quarry near Holbeck to sustain long term supplies of industrial dolomite? Do you have any views on the key environmental issues that should be identified to make such proposals acceptable? (Refer to Q11 to comment on associated aggregate extraction)

Q22 If Steetley Quarry is allocated for aggregate extraction should the industrial grade mineral be used for that purpose rather than as an aggregate?
(Refer to Q12 to comment on aggregate extraction)

Plan 10: **Industrial dolomite resource and location of quarries**



Building stone

The only building stone resource currently worked in Nottinghamshire is 'Bulwell Stone', a locally distinctive form of Magnesian Limestone found between Bulwell and Hucknall. It is used as a local building stone and more widely as a walling stone where it forms the buff coloured blocky stone used to front many older properties in Nottingham and its suburbs. Extraction is now limited to Yellowstone Quarry at Linby.

Historically the Bulwell Stone and the Magnesian Limestone in general were worked much more widely between Nottingham and Mansfield, and used on a variety of building projects including Southwell Minster, Ely Cathedral and the lower courses of the Houses of Parliament. In the past other local resources, such as the Liassic Limestones found in the Vale of Belvoir, were worked but these poorer quality stones have not been exploited for many years.

Issues and options

National policy on building stone promotes the conservation and use of our building stone industry and resources. This is because they form an essential part of our built heritage including the repair and maintenance of historic buildings and new build in conservation areas. Against this background it is important for the new Minerals Local Plan to make adequate provision for building stone subject to environmental safeguards.

The reserve life at Yellowstone Quarry is uncertain other than the fact that planning permission is due to expire in 2015. The Quarry has recently changed hands and the new operator has yet to assess what reserves remain in this quarry.

Whilst renewing the planning permission at Yellowstone Quarry is an option, it is unclear if this would provide enough stone for the plan period. If not then extending the quarry could be possible. The main drawback with either option is that the site is partly bounded by a SSSI which could constrain future extensions and further development of the site could risk continuing the use of the current poor access. This historical situation is now dealt with by planning conditions that limit HGV movements but this also restricts the amount of stone that can be sold. If the new Minerals Local Plan is to promote the long term operation of this quarry then finding alternative access arrangements should be explored. Apart from resolving the poor access this could also allow production to increase.

Another option is to promote a replacement quarry that avoids the current access problems. To date none have been put forward but the size of the resource suggests that potentially suitable alternative sites could exist.

National policy also favours the re-opening or development of new quarries in building stones that are no longer worked and which could help the repair and maintenance of old buildings that no longer have access to matching local stone. The commercial viability and demand for such stone locally is unknown but it would seem reasonable to have a policy that would in principle support such proposals subject to environmental safeguards.

Q23 Do you have any views on how the Plan should make long term provision for Bulwell Stone?

Q24 Is there a proven need to re-open disused quarries or develop new quarries in other building stone resources to help meet local demand for this mineral?

Plan 11: **Bulwell stone resource and location of quarry**

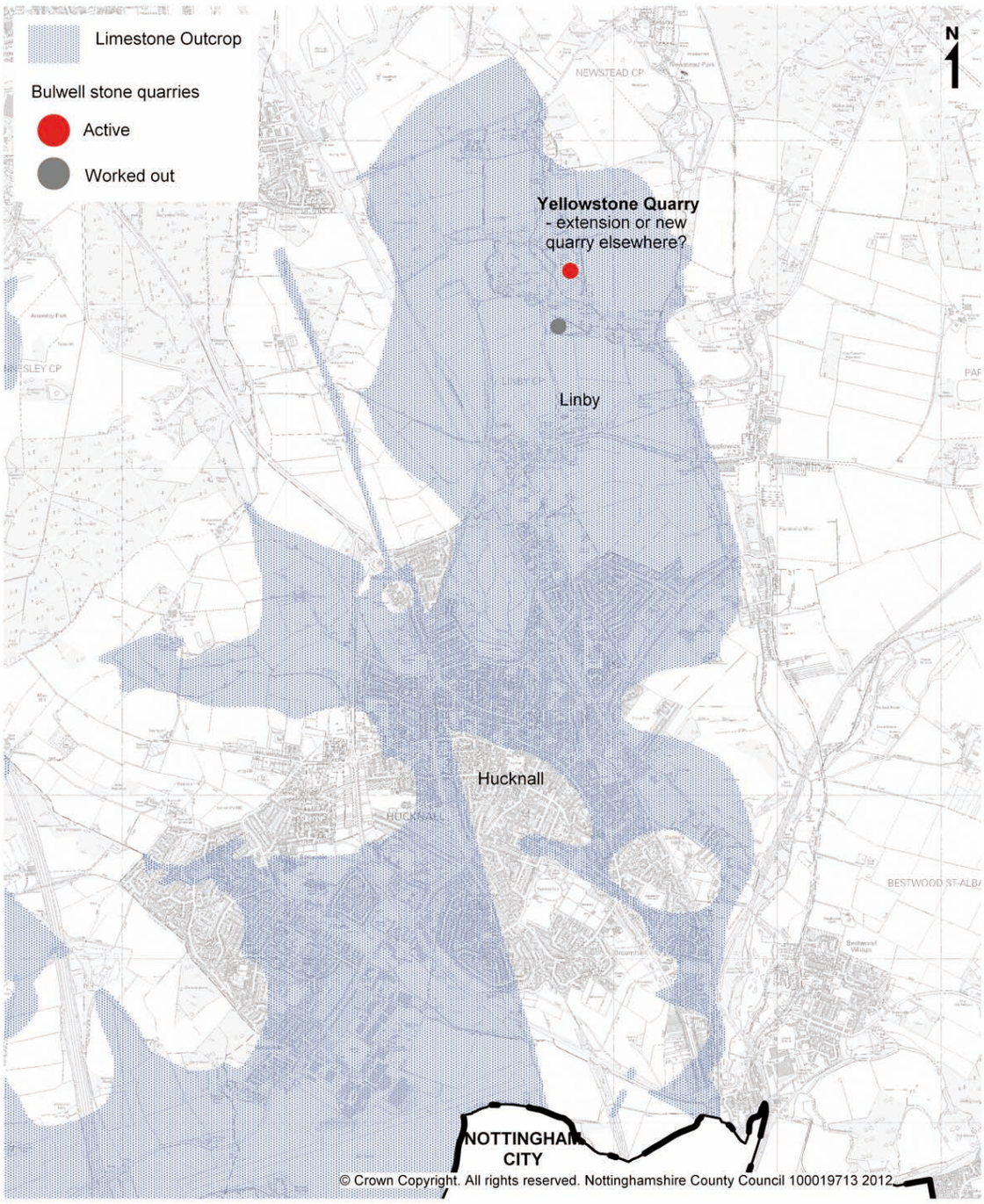


Image courtesy of
www.portraitcollective.com/nbs

Coal

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. Since the 1980s the coal industry has generally been in decline, especially the deep mined operations, in response to cheaper imports and a switch to other fuels, in particular gas. Coal nevertheless remains an important element of our energy supplies.

Today Thoresby Colliery is the only active mine in Nottinghamshire, although Harworth Colliery could reopen in the future. There has been no surface coal mining in the County since 1999 but high energy prices mean that proposals to exploit this resource are likely. Indeed a proposal to work surface mined coal at Shortwood Farm near Cossall is being considered by the industry, although the timescale for this is uncertain. Coal can also be recovered from old spoil heaps as is currently happening at the old Langton Colliery tip.

National policies on energy are to maintain the reliability of energy supplies, and promote competitive markets. There are no production targets as the Government believes this is a matter for the markets reinforced by long term policy measures.

National guidance sets out a presumption against coal development unless it can be made environmentally acceptable through planning conditions or if not where local community benefits outweigh the likely impacts. The draft National Planning Policy Framework intends to add 'national benefits' to these factors.

Colliery tipping

Thoresby Colliery has sufficient planned coal reserves until at least 2018 but its life could be extended considerably if a commercial decision is taken to exploit deeper seams. Critical to this decision will be finding sufficient capacity to dispose of the millions of tonnes of waste spoil that will also be removed with the coal. Spoil is currently disposed of in large heaps adjacent to the mine head but the remaining permitted capacity is becoming low.

Accommodating spoil from all of the current planned reserves will require some new capacity which could probably be found within the existing colliery footprint. However, to accommodate spoil from any major new reserves will require the tip to expand well beyond its current boundaries.

At Thoresby this is a real problem as the colliery is in the middle of Sherwood Forest and almost surrounded by designated wildlife sites of national and international importance. Putting the spoil back into the mine workings is not a viable option which means that a suitable new greenfield site is needed if the mine is to have a long term future. The new Minerals Local Plan could identify a site or sites for this if sufficient evidence becomes available or if not set out criteria against which any tipping proposals will be assessed.

Land immediately to the south of the tip either side of the access road towards Ollerton Road is likely to be the most practical and economic option but the proximity of residential areas will be a significant issue for disposal west of the access road. Road haulage to a more remote site may be possible but the environmental and economic costs of this approach limits distances and therefore options. Rail haulage to a more remote site is in theory possible but the mineral operator has advised that economic and technical issues could affect the viability of the mine.

Harworth Colliery has an estimated 8-10 years disposal capacity left. It will take 3 years to return to production if and when the go-ahead is given so new tipping capacity should not be required until 2023 at the earliest. In view of the current economic climate an early decision to reopen the colliery seems unlikely and it remains possible that the colliery may never reopen.

Compared to Thoresby, Harworth Colliery tip is less environmentally constrained. Potential local options include extending south towards the A1 Blyth roundabout or going east of Blyth Road. Residential areas centred on Harworth Avenue at the south end of Blyth Road and encroaching new industrial development in the north could however limit what is possible. More remote options may exist but as discussed above with regards to Thoresby Colliery the environmental and economic costs will limit distances and options.

Q25 Should the Plan give specific guidance on the key issues that will influence future long term spoil disposal options at Thoresby Colliery, and should it identify potential tipping sites if sufficient evidence is put forward?

Q26 How should the Plan provide for the long term future and uncertain tipping requirements at Harworth Colliery? Should the plan rely on the current general criteria based policy or identify potential sites if the evidence is available?

Coal recovery from tip washing

Past 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 which is then re-deposited within the original tipping area.

In principle this can be a very sustainable activity as it is recovering 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. Langton Colliery Tip near Kirkby in Ashfield is currently being rewashed and an old conical tip at Mansfield was previously washed on this basis.

The downside of this activity is that it can 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.

The current Minerals Local Plan policy is generally in favour of this activity providing it does not have unacceptable social and environmental impacts.

Future opportunities for tip rewashing appear limited, however this could change if it becomes viable to work sites not previously considered, due to factors such as increased coal prices.

Q27 Do you think that the current approach set out in the Minerals Local Plan remains valid?

Q28 Do you have any information about future prospects of tip washing in Nottinghamshire?

Surface coal mining

Surface coal mining can occur on a wide range of scales – from major schemes extracting millions of tonnes over ten or more years to small scale proposals extracting a few thousand tonnes over a period of weeks or months worked in advance of other development. In the past surface coal mining was often associated with the reclamation of derelict and other brownfield sites associated with heavy industry. In Nottinghamshire most of these sites have now been restored and future opportunities are much more limited.

Significant surface coal resources remain but most if not all large prospects lie within greenfield land. Long term environmental gains are possible in certain circumstances as schemes may for example be able to put back more landscape and biodiversity interest than is destroyed. However these gains have to be weighed against the often severe impacts of the extractive phase.

The current Minerals Local Plan dealt with this issue by applying a 'constraint area' approach which defined those areas where there is a strong presumption against surface coal extraction on the proposals map. These included 'mature landscape areas', Sites of Special Scientific Interest, Ancient woodland, Scheduled Ancient Monuments and ecologically important stretches of the Erewash River. Proposals that fell outside these areas would be considered against a general policy that reflected national guidance.

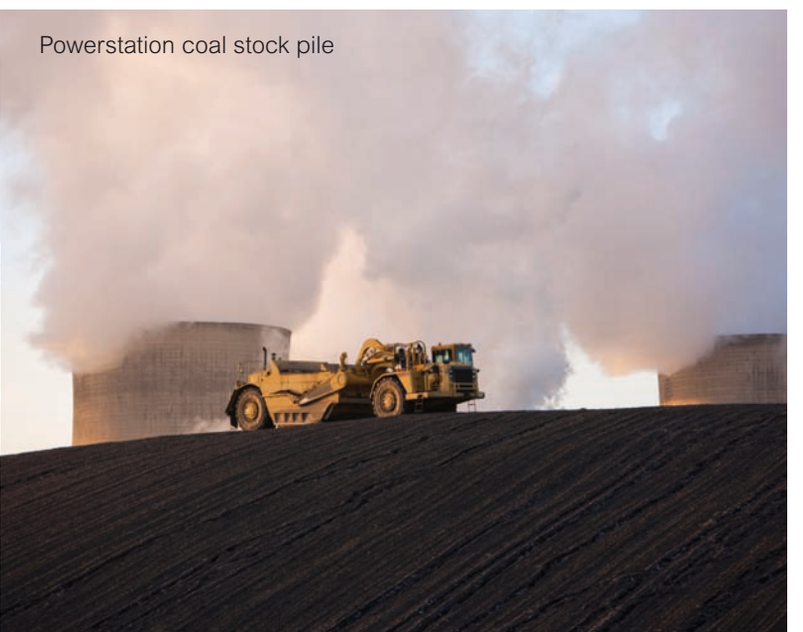
Whilst these constraints still remain valid the 'mature landscape area' designation has now been replaced by an overall landscape character assessment which the new Minerals Local Plan will need to take into account. This change means that identifying landscape constraint areas on the proposals map is no longer possible. As landscape previously accounted for the vast majority of the constraint areas identified in the current Plan then little purpose will be served by just indicating the remaining environmental constraints many of which overlapped with the landscape areas.

The local landscape is still a very significant issue in the Erewash Valley and one that is likely to influence where surface coal mining will be acceptable. The issue is to decide if this is best reflected in a new policy on surface coal mining extraction or if this can be adequately covered under a general landscape character policy applicable to all forms of minerals development.

As any future large scale proposals will most likely be on greenfield land then it is also more important to consider what local community benefits might apply that could help offset the environmental impact of mineral extraction. These are likely to vary between sites but an indication of what they might be would add local clarity to this national planning principle. It is also relevant to consider what 'national benefits' if any, could apply.

Coal Recovery at Langton Tip

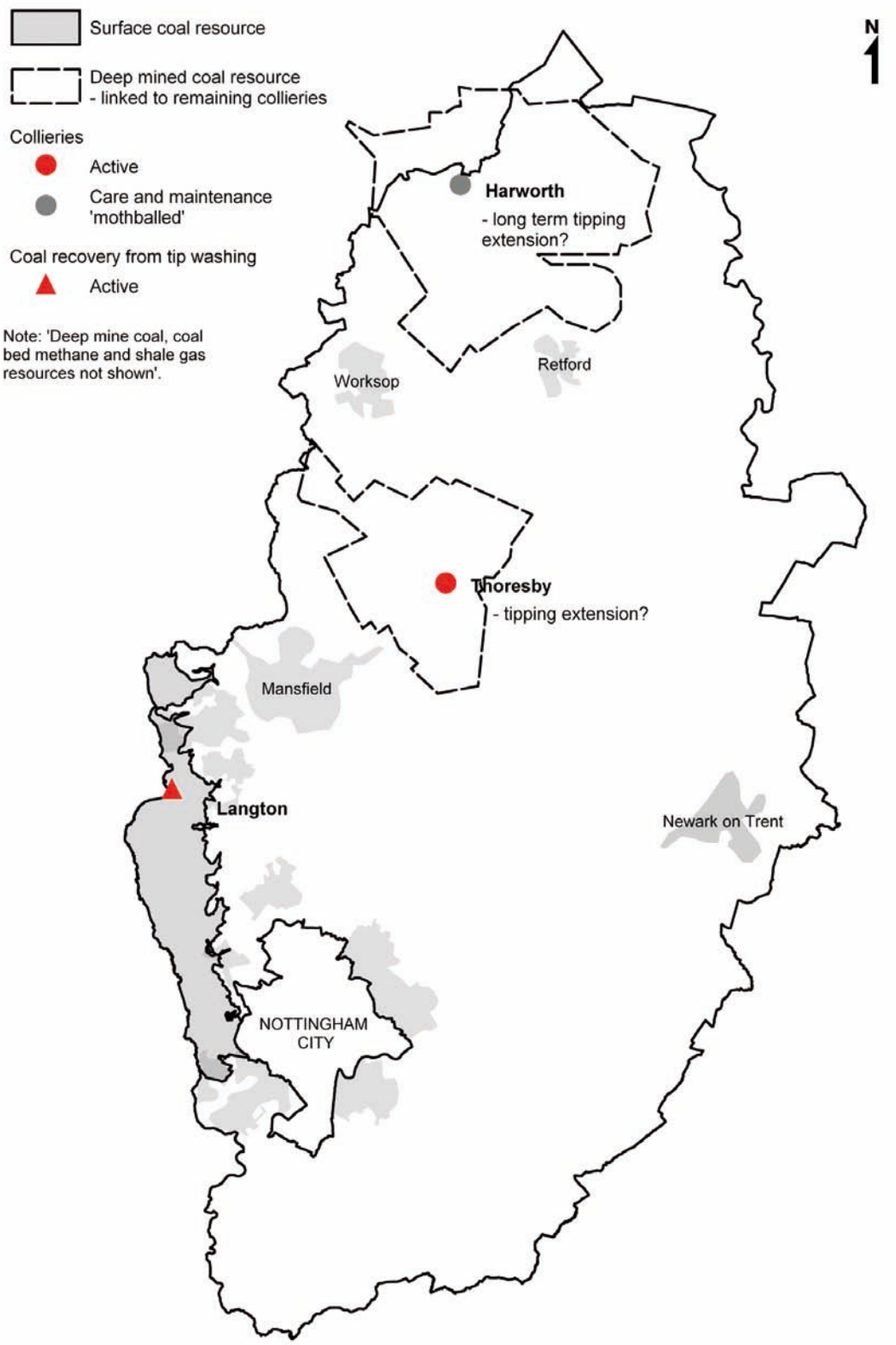
Powerstation coal stock pile



Q29 As most, if not all, major new surface coal mining proposals will be within greenfield sites, what types of local benefits could help offset the environmental impact of extraction? What national benefits if any should apply?

Q30 Should the plan identify the key strategic environmental issues, such as landscape character, that will influence where future surface coal mining will be acceptable in principle?

Plan 12: **Coal resource and location of mines**



Hydrocarbons - Oil and Gas

Hydrocarbon minerals, which comprise oil and gas, are the most important energy minerals produced and consumed in the UK. In 2008 nationally we produced 150 million tonnes but consumed 167 million tonnes.

Nearly all current 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 our offshore 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 extraction and shale gas both of which are known to exist beneath Nottinghamshire.

National energy policy on oil and gas production is broadly positive as described in the previous section on coal. This is reinforced in specific guidance on oil and gas production which states that the Government's main aim is to maximise the potential of the UK's conventional oil and gas reserves in an environmentally acceptable way. The issues surrounding each of the County's oil and gas resources are set out below.

Oil

Oil has been extracted on a small scale since the Second World War when oil reservoirs 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.

Oil exploration and production has raised few concerns and it is not expected to raise any critical issues for the Minerals Local Plan to resolve. The stance set out in the existing Minerals Local Plan supports this activity subject to avoiding unacceptable environmental impacts.

Q31 Do you think the current policy approach towards oil remains appropriate?

Mine gas

Coal seams exposed during deep mining release methane trapped within them. This methane also known as 'mine gas' is a major mining hazard. Once mining and ventilation ceases methane can fill the mineshafts, other voids and 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.

Mine gas can be recovered and burnt to generate electricity, an activity that is very sustainable in that it reduces the escape of one of the most potent 'greenhouse gases' into the atmosphere and converts it into a useful fuel. This in turn reduces the demand for other finite fossil fuels.

The stance set out in the existing Minerals Local Plan supports this activity subject to avoiding unacceptable environmental impacts.

Q32 Do you think the current policy approach towards mine gas remains appropriate?

Coal bed methane

Coal bed methane extraction involves removing methane directly from the seam without actually mining the coal. This 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 permitted but have not yet been developed. 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.

National policy advises that the proposals map should identify the potential resource area and identify any key constraint areas within it. The nature of what these constraints are is however not stated.

The environmental impacts of coal bed methane extraction are similar to on-shore oil although the wells may be more numerous and closely spread. Water pollution is a potential issue as water pumped out of the coal seams can be very saline and needs careful disposal.

As the future economic interest in this mineral is very uncertain it is unknown if it will raise any critical issues for the new Minerals Local Plan. The current Minerals Local Plan supports this activity providing there are no unacceptable impacts. Should the indicative extent of the resource prove reliable then this area could be defined along with any key constraints.

Q33 Do you think the current policy approach towards coal bed methane remains appropriate?

Q34 Do you have any evidence that would refine our understanding of the extent of the economically viable resource in Nottinghamshire?

Q35 What key constraints, if any, should be applied to identify where coal bed methane extraction is not acceptable in principle?

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. Like coal bed methane extraction, this technology is most developed in the USA where it has gone though 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. However, the first exploration borehole near Blackpool in Lancashire has been successful which could encourage the exploration of other resources in the UK. 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 and sand 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. These include alleged pollution problems in the USA and more locally a recent series of small earthquakes in Lancashire has been linked to the exploration in Blackpool.

It is too early to know if shale gas will become a major national and local issue or if its development will stall due to economic or other obstacles. It seems unlikely that the planning and environmental control regime in the UK would allow for the rapid expansion witnessed in the USA. However, the enormous potential of this resource provides a huge economic and political incentive to develop it as rapidly as possible in order to replace our dwindling conventional offshore resources.

There is no specific national policy guidance on shale gas as it is so new. Against national energy policy guidance this suggests that the new Minerals Local Plan should take a broadly positive stance subject to the necessary environmental safeguards. One option would be to define any key constraints, as proposed for coal bed methane.

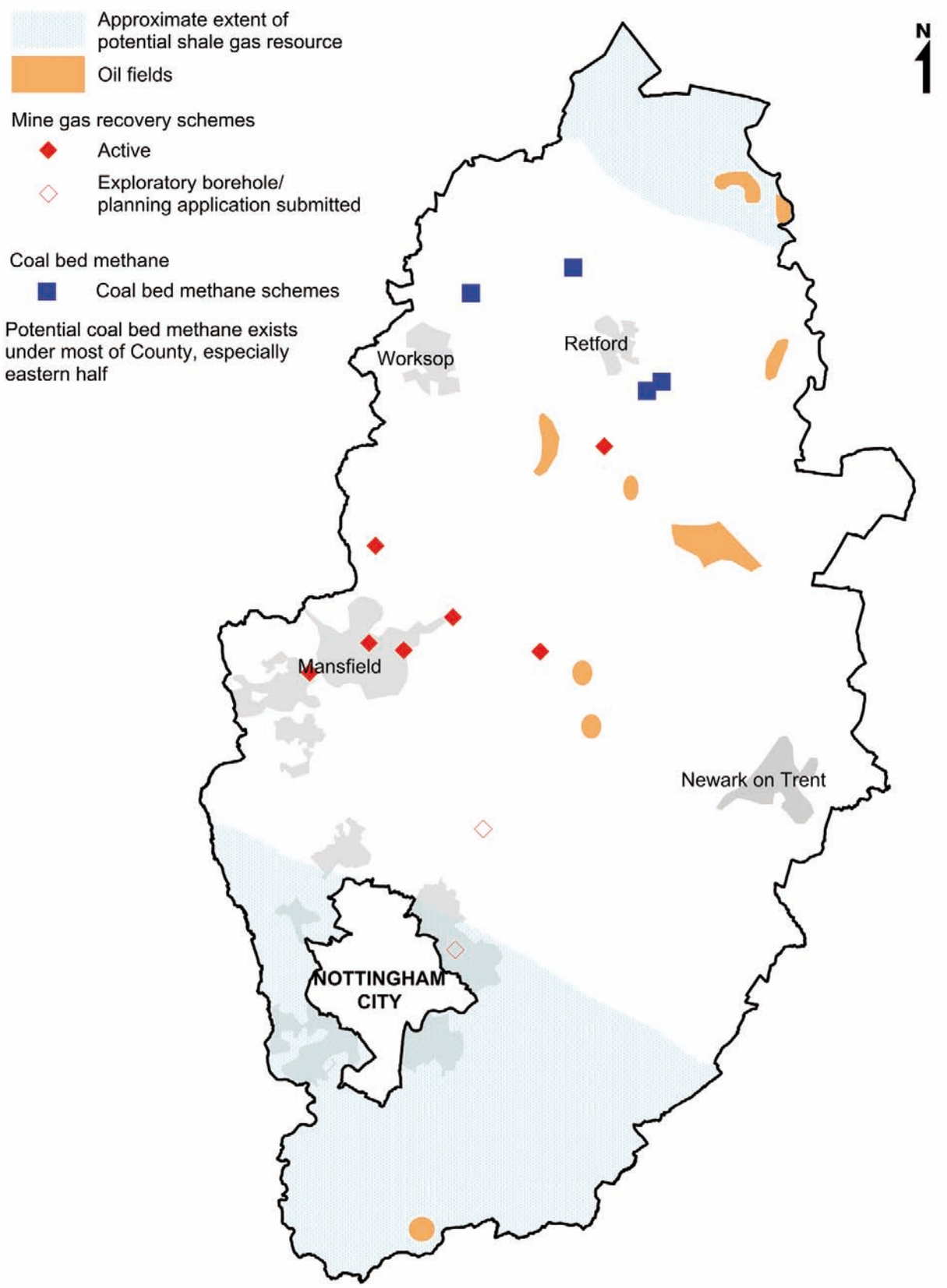
Q36 Do you have any evidence that would refine our understanding of the extent of the shale gas resource in Nottinghamshire and its potential for exploration?

Q37 Would it be reasonable to apply the same approach to shale gas as suggested for coal bed methane in terms of identifying constraint areas?

Q38 In the absence of specific national policy do you see any reasons not to adopt a broadly positive stance in principle to extracting this mineral?

Coal Bed Methane drilling rig
Image courtesy of
Dart Energy (Europe) limited

Plan 13: **Coal Bed Methane, mine gas and shale gas resource and location of facilities**



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.

Social and environmental issues

This section looks at the strategic social and environmental issues that will influence what types of site are likely to best fulfil the objectives of the Minerals Local Plan. The issue of protecting residential and local amenity is considered separately in the section on development management policies.

Biodiversity

Pressures such as agricultural intensification, forestry and development have resulted in a significant reduction in the area and quality of habitat in Nottinghamshire over the last few centuries. As a result, the County's biodiversity resource has been significantly reduced.

The reclamation of worked out quarries can provide major benefits for biodiversity by creating new habitats or restoring lost ones. This can help to meet national and local habitat creation targets and also provide significant public benefit.

Current national policy states that plans should aim to have a minimal impact on biodiversity and wherever possible enhance, restore or add to biodiversity.

At a local level the County Council is a signatory to the 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, could contribute significantly towards meeting these targets and add to the success of existing wetland reclamation schemes.

If the potential of minerals reclamation schemes is to be maximised, we must carefully plan which habitats can be created, and where. An area-wide strategy could be used, which would involve identifying certain areas with specific habitat and biodiversity priorities/needs and then coordinating restoration schemes to ensure that linkages are created between habitats to aid the migration and dispersal of species. An example would be the Trent Valley which has significant scope for wetland restoration.

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

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

Image courtesy of
Tarmac Limited

Issues and options

The main issues for the plan are:

- Avoiding damage to existing designated nature conservation sites and priority habitats;
- Identifying which LBAP targets could be met through mineral restoration schemes;
- Ensuring that plan policies give clear guidance on the types of restoration required to meet LBAP targets;
- Identifying the most suitable locations and habitats for biodiversity; and
- Ensuring that a strategic approach to restoration is taken, particularly in the Trent Valley, to contribute to area-wide needs.

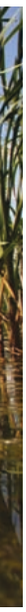
The main options for the plan to consider are:

a) Have a broad strategic policy promoting biodiversity through site restoration; or

b) Have a policy promoting area-wide strategies focusing on specific biodiversity needs i.e. wetland restoration in the Trent Valley; or

c) Have a policy based on meeting LBAP targets.

Q39 Which of the approaches above do you think is most suitable for promoting biodiversity? Or do you have other suggestions?



Landscape character

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 great 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 such changes a study of the County's landscape, known as the Nottinghamshire Landscape Character Assessment (LCA) has been completed. This splits 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 that make them distinctive.

The LCA identifies specific features of the different Landscape Character Areas. 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.

Issues and options

The main issues for the plan are:

- Minerals workings can have a significant impact on the landscape, both positive and negative;
- Ensuring that plan policies give clear guidance on the restoration of sites to ensure that high quality restoration takes place; and
- Ensuring that landscape character is considered proactively throughout the life of minerals workings.

The main options for the plan to consider are:

a) Taking a policy approach which focuses on specific Landscape Character Areas that are particularly unsuitable, or suitable for minerals extraction; or

b) Take a more general policy approach requiring the Landscape Character Assessment to be taken into consideration when assessing planning applications.

Q40 Which approach do you think would be most suitable for protecting and enhancing landscape character in the Plan? Do you have any other suggestions?

Recreational opportunities

Although the provision of recreational facilities is not a strategic objective of the Plan, former mineral workings have provided many water based and other recreational areas in the County. The best known water based example is the National Water Sports Centre at Holme Pierrepoint but almost all the marinas, sailing and angling lakes along the Trent and Idle Valleys originated as a sand and gravel quarry. Old colliery tips have also made an important contribution, such as at the former Bestwood Colliery which along with some old sand workings have now been integrated into a country park. Even where the primary purpose of a reclaimed site is nature conservation, the recreational and amenity benefits of such areas can be very significant as noted in the earlier section on biodiversity.

The development of recreational facilities within a reclaimed mineral working, especially built development, will normally be an issue for the District Council to determine. However, if a mineral development proposal is to be reclaimed to such a use the way the site is restored and the acceptability of the proposed end-use in principle will be a mineral planning issue.

As new opportunities could arise in the future it is relevant to assess what guidance the Minerals Local Plan can and should give.

Issues and options

Looking ahead to 2030, opportunities for creating any major new water recreational areas will continue to arise mainly out of sand and gravel extraction. Disused colliery tips could also provide further significant opportunities, but as discussed earlier in this paper, the scale of new areas of tipping will be limited and most old tips have now been reclaimed.

For the Minerals Local Plan the strategic issue is to ensure that such opportunities are considered where a need for them has been established. This can have significant bearings on types of location as proximity and access to urban areas may be an important advantage whereas for some nature conservation sites the reverse can apply.

Q41 Do you have any evidence of the need for major new recreational facilities in the County that are likely to rely on mineral extraction to be realised?

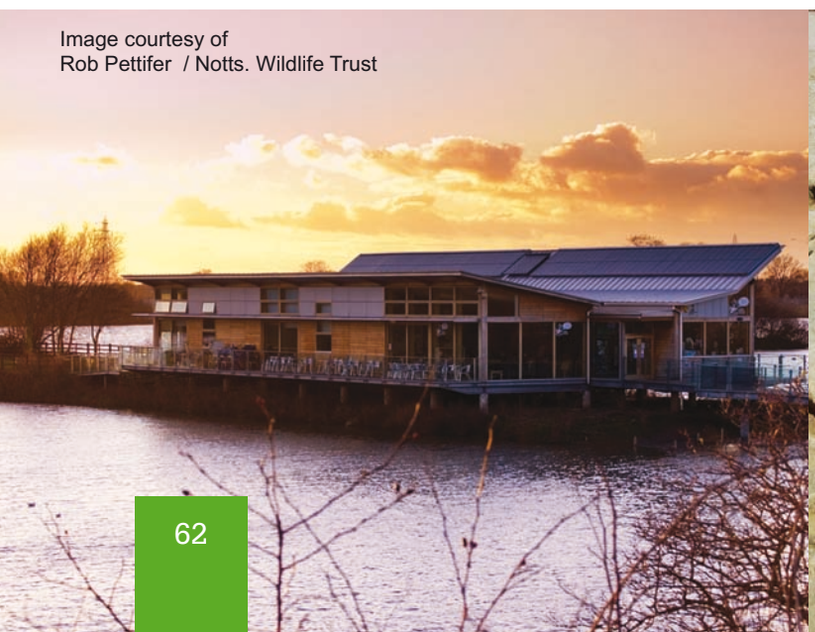


Image courtesy of
Rob Pettifer / Notts. Wildlife Trust

Round house being excavated
at a sand a gravel quarry

Archaeology

Nottinghamshire is not only rich in minerals, but also historical remains. 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 resources and what they tell us about the past.

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.

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. 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. This is because of the site's very high concentration of crop marks present and the lack of detailed information about the nature of the remains. The reasons for retaining this designation remain valid but the basis of this designation needs to be re-appraised before it is considered for designation in the new Plan.

Issues and options

The main archaeological issues for the plan are:

- To avoid harm to nationally significant heritage assets, whether designated or not;
- Ensure appropriate mitigation for any loss of heritage assets that are not nationally significant;
- Recognise that our understanding of the County's archaeology remains quite poor across most time periods and parts of the county; and
- Review the designation of the South Muskham archaeological site of national importance.

The main options for the plan are:

a) To take forward the existing Minerals Local Plan approach, promoting a proportionate response to proposals that will impact upon the County's historic environment; or

b) Promoting the preservation in situ of nationally important sites and their wider settings whether designated or not, including the area of special archaeological interest at South Muskham. The policy could also make reference to the treatment of remains of lesser significance; or

c) Give weight to new mineral extraction proposals that would help fill the knowledge gaps about the County's archaeology.

Q42 Do you agree with the main archaeological issues raised? Are there other issues that we should be considering?

Q43 Which approach to archaeology do you consider to be more appropriate? Are there any other approaches we should consider?

Climate change

Tackling climate change is a key Government priority for the planning system in both current and emerging national policy. Locally, the Nottinghamshire Sustainable Community Strategy is committed to taking a sustainable approach to planning development that responds to the challenges of climate change. It is a cross-cutting topic covering issues such as reducing greenhouse gas emissions, supporting renewable and low carbon energy, minimising the vulnerability to climate change and managing the risks of flooding.

Issues and options

The main issues for the new Minerals Local Plan to consider are:

- reducing the transport of minerals long distance by road, which contributes significantly to emissions from the minerals industry;
- ensuring that minerals workings operate in an energy efficient manner;
- planning for the supply of minerals that meet the standards for low carbon construction and energy;
- ensuring that reclamation schemes take into account the effects of climate change and where appropriate, provide opportunities for the creation of habitat for species forced to migrate as a result of it; and
- ensuring that development does not increase the vulnerability of the area to the impacts of climate change and flooding, and where appropriate contributes to flood risk management.

Due to the prominence of climate change on both the national and local agenda, it is an important issue for the new Minerals Local Plan to consider. There are a two policy approaches that could be adopted:

a) A strategic policy specifically covering climate change could cover both adapting to and minimising the impact of climate change; or

b) Climate change issues could be covered by other policies in the plan, with no specific policy on it. For example the reduction of emissions could be dealt with through the promotion of sustainable transport and energy efficiency through a development management policy.

Whichever approach is taken, the specific issues to be covered will be developed through consultation with the public and key stakeholders.

Q44 Do you agree with the climate change issues raised? Are there any other issues that we should be considering?

Q45 Which approach do you consider to be more appropriate for dealing with climate change? Are there any other approaches we should consider?

Image courtesy of
Tarmac Limited

Flood risk

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 avoided and 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.

Issues and options

The main issues for the new minerals local plan to consider are:

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

It is considered a strategic policy for flooding could take the form of either:

a) A broad policy requiring use of the SFRA for site assessments; or

b) Identify specific constraint areas in the plan of highest flood risk where development should be avoided.

Q46 Which of the above startegic approaches to flood risk do you think would be most suitable? Have you any other suggestions?

Q47 Do you think a strategic flood risk policy should be supported by a development policy? If so what do you think should be included?

Agricultural Land

Most of the country's undeveloped land is in agricultural use. It is a vital natural and economic resource and protecting it from unsuitable development is an important consideration. This is reflected in national policy, both current and emerging, which states that where significant development of agricultural land is considered to be necessary, poorer quality land should be used in preference to that of higher quality, provided this is consistent with other sustainability criteria. The Agricultural Land Classification system categorises land into five grades, of which 1, 2 and 3a are defined as the 'best and most versatile'.

Issues and options

The main issues for the new Minerals Local Plan to consider are:

- Minerals development often involves large areas of land and is limited to areas where the minerals naturally occur 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. It is a factor that is used in the comparative assessment of different sites and will have a role in any site specific allocations;
- Most 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; and
- Mineral reclamation schemes can occasionally provide opportunities to improve agricultural land for example by increasing soil cover or by altering the drainage regime.

As the protection of agricultural land is covered in national policy, the need to repeat it at the local level is uncertain (as explained in section on development management policies). Such a policy would only be justified if any special local circumstances existed. No such circumstances were evident when the previous plan was prepared and none are known to exist today but this consultation exercise provides an opportunity to test this.

Q48 Do you have any evidence that current national policy on protecting agricultural land should be modified to suit local circumstances? Are there any local agricultural land issues relevant to mineral extraction that need to be considered in the Plan?

Development management policies

Development management (DM) policies provide the more detailed criteria against which future planning applications will be assessed.

They cover topics such as environmental pollution, traffic, biodiversity, the historic environment and after-use of sites and are especially important in protecting residential and other local amenity. The broad aim is to ensure that the impacts of development proposals are identified and where appropriate mitigated so that only environmentally acceptable proposals are permitted.

There is no detailed national guidance on this issue, but the favoured approach is to focus on a small number of generic policies that promote the overall strategy. These should plan positively for development rather than follow the previous practice of having numerous, negative policies. National policy guidance should not be repeated, although emerging national policy is silent on this issue.

Issues and options

It is unlikely that the existing DM policies in the Minerals Local Plan will meet these national requirements and therefore the main issues are to:

- consider the extent to which the existing policies should be streamlined;
- examine how policies can be worded more positively; and
- establish the range of topics that should be covered.

The issue of not repeating national policy guidance will remain uncertain until the new national guidance is issued which is expected to be no earlier than mid 2012.

It is considered that there are two main options for creating a new set of development management policies for the new Local Plan.

a) Use the existing policies, but merge and group them to create positively worded and more succinct policies; or

b) As above, but also to remove topics that could be covered in the strategic part of the new Plan.

The proposed policy topics are, as a minimum:

- Information in support of planning applications
- Unauthorised development
- Environmental and amenity considerations
- Associated industrial development
- Public access
- Reclamation
- After-use
- Air safety (birdstrike)
- Minerals review
- Minerals exploration
- Safeguarding

Additional topics, possibly to be covered with strategic policies:

- Sustainable development
- Biodiversity
- Retaining local distinctiveness (historical assets / landscape character)
- Climate change and flooding

Q49 Which approach would you consider most appropriate for developing a new set of development control policies? Are there any other approaches that should be considered?

Q50 Do you agree with the proposed development management policy areas? Are there any other areas that should be covered?

Minerals Safeguarding

As mineral resources are finite and can only be worked where they occur, we must try to conserve them for the long term by avoiding minerals being unnecessarily sterilised by other development such as housing, retail or industry which can often be located elsewhere.

The concept of safeguarding minerals is not new, but the actual weight given to conserving minerals resources has generally been much weaker than that given for other natural assets. To redress this imbalance Government policy now requires all mineral planning authorities to define minerals safeguarding areas in detail on the proposals map.

Safeguarded areas do not imply that mineral extraction is acceptable and neither do they preclude other development – their purpose is simply to ensure that mineral resources are taken into account when they are at risk from being lost to other development.

Issues and options

The main issues for the Minerals Local Plan are to set out which resources should be safeguarded and how they will be safeguarded. As almost the entire County overlies a potential surface or underground resource then safeguarding every mineral resource is not a practical option (see plan 14). There are also huge variations in the extent and rates of exploitation for individual minerals. Some resources are quite depleted whilst others are very abundant. Safeguarding underground resources also raises it own issues.

The County Council has been liaising with the minerals industry and District Councils to try and refine the resource down to more meaningful areas and to look at how these can be safeguarded. For example, should prior extraction be considered and how can the value of the mineral resource at risk be weighed against the benefits of the proposed development that will sterilise them?

The potential complexity of safeguarding boundaries suggests that there is merit in defining these in detail in a separate development plan, or combined with a site allocation document. This has the advantage of allowing the Minerals Local Plan to focus on establishing the strategy for safeguarding which can then provide a robust basis on which to resolve the more detailed issues.

Full details of this and other safeguarding issues are set out in a separate background paper which you are recommended to read if you wish to comment on this issue in any detail.

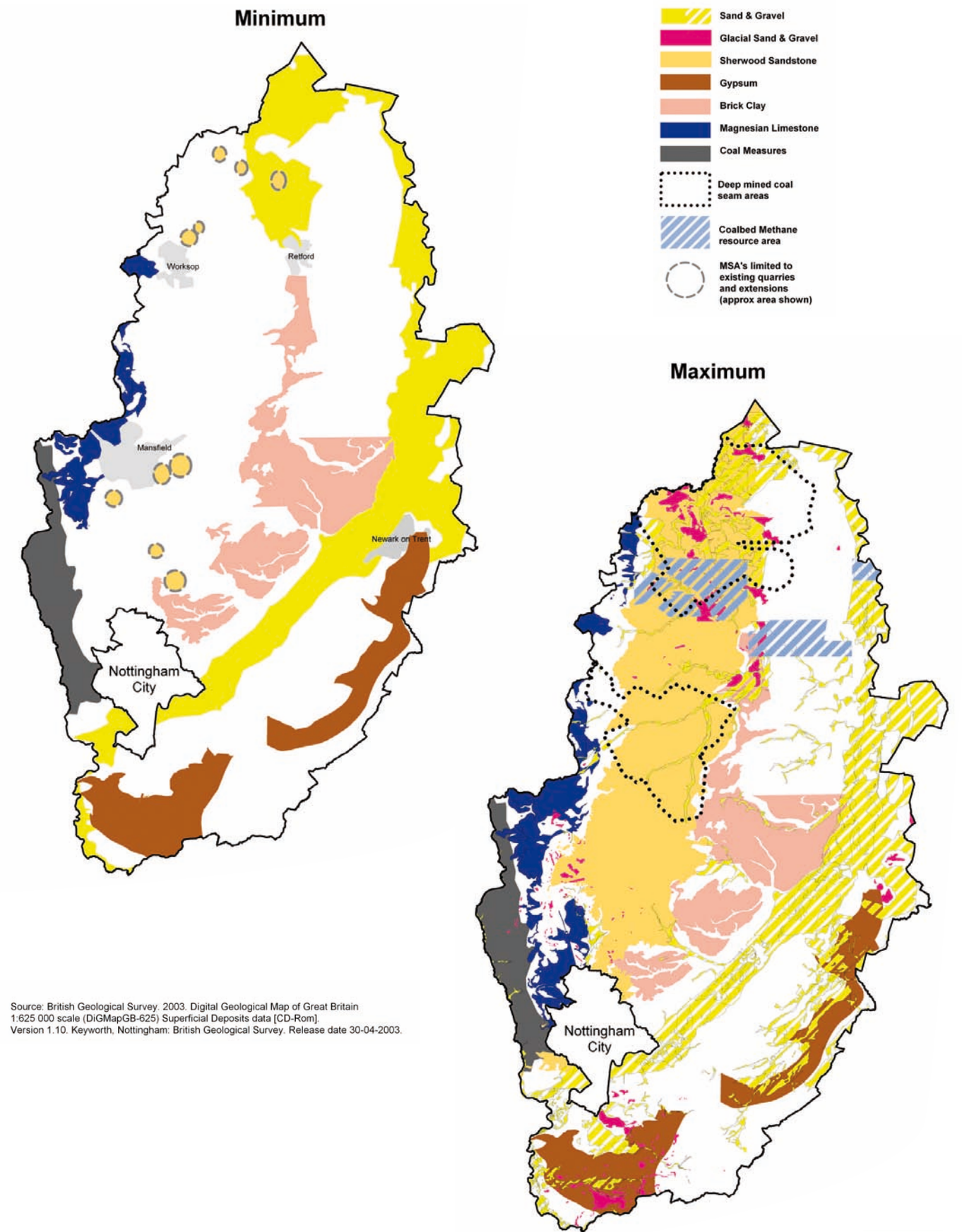
Q51 Do you have any views on which mineral resources should be safeguarded?

Q52 Do you have any evidence that would help refine the resources to be safeguarded?

Q53 Do you have any views on how safeguarding will work in practice? For example, is prior extraction realistic? What timescales should be considered?

These maps illustrate how the general extent of mineral safeguarding areas could vary according to different approaches being applied. More details can be found in the safeguarding background paper.

Plan 14 **Possible approaches to minerals safeguarding**



Source: 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.

Did you know?

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

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D&P/01-12/PP&CS/006942