CHAPTER 3: STRATEGIC POLICIES

SP1: Sustainable development

What you told us at the Issues and Options stage...

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

Introduction

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

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

POLICY SP1 – SUSTAINABLE DEVELOPMENT

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

- 2. Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in other plans which form part of the development plan) will be approved unless material considerations indicate otherwise.
- 3. Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision the Council will grant planning permission unless material considerations indicate otherwise taking into account whether:
 - a) Any adverse impacts of granting planning permission would significantly and demonstrably outweigh the benefits, when assessed against policies in the National Planning Policy Framework taken as whole; or
 - b) Specific policies in that Framework indicate that development should be restricted.

Justification

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

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

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

SP2: Biodiversity Led Restoration

What you told us at the Issues and Options Stage...

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

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

Issues and Options Sustainability Appraisal Findings:

- The Sustainability Appraisal (SA) concluded that the options were very specific, narrowly defined and that there was no clear link between any of the options and several of the SA objectives;
- None of the options had any negative impacts, however there was potential for all 3 options to have positive or negative impacts on SA objective 5 (protect townscape/landscape);
- Differences between the options arose in relation to SA objectives 2, 7, 13 and 14. For objective 2 (protect and enhance biodiversity) Option B had a very positive impact whereas Options A and C had a positive impact. For objective 7 (minimise impacts on and increase adaptability to climate change) Options A and B had positive impacts

whilst C had no significant effect. For both objectives 13 and 14 Options A and B had positive impacts whilst the impact of C was uncertain;

• Options A and B therefore scored more favourably than C, with Option B being marginally more favourable than A in that it had a very positive, rather than just a positive, impact on SA objective 2.

Introduction

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

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

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

POLICY SP2 – BIODIVERSITY-LED RESTORATION

- Restoration schemes contributing to the delivery of habitat creation targets within the Nottinghamshire Local Biodiversity Action Plan and contribute to the delivery of the Trent Valley Biodiversity Opportunity Mapping Project shall be supported where appropriate, unless the need for non-biodiversity restoration can be clearly demonstrated.
- 2. Where appropriate, schemes will be expected to demonstrate how restoration will contribute to the delivery of the Water Framework Directive targets.
- 3. Restoration schemes for allocated sites should be in line with the relevant Site Restoration Brief.

Justification

Once minerals extraction sites have fulfilled their primary purpose of providing mineral, the restoration of such sites can have a major environmental benefit; there is considerable potential in linking existing areas of habitat as well as creating new areas of habitat for wildlife, and in doing so, to help meet national and local habitat creation targets. A more systematic approach to the assessment of impacts on the natural environment to ensure that the true value of ecosystems and the services provided by the natural environment that benefit people need to be considered.

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

Whilst a certain level of new habitat has been delivered in Nottinghamshire as a result of the restoration of permitted minerals extraction sites, opportunities have in the past been lost. With a suitable policy framework, and careful planning at an early stage, the level of high-quality habitat delivered by mineral extraction can be increased, creating valuable places for both wildlife and people.

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

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

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

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

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

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

Priority habitats in the Trent and Idle Valleys are:

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

Priority habitats in the Sherwood Sandstone area are:

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

Priority habitats in the Magnesian Limestone area are:

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

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

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

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

Biodiversity Opportunity Mapping

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

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

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

Areas of Multiple Environmental Sensitivity

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

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

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

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

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

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

SP3: Climate Change

What you told us at the Issues and Options stage...

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

Issues and Options Sustainability Appraisal Findings:

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

Introduction

The Government is committed to tackling the causes of climate change and planning can play a key role in securing reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change. This is central to the economic, social and environmental dimensions of sustainable development. Nottinghamshire County Council is committed to reducing the impact of minerals development on climate change.

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

POLICY SP3 – CLIMATE CHANGE

- 1. All minerals development, including site preparation, operational practices and restoration proposals should minimise their impact on the causes of climate change for the lifetime of the development. Where applicable development should assist in the reduction of vulnerability and provide resilience to the impacts of climate change by:
 - a) Being located, designed and operated to help reduce greenhouse gas emissions and move towards a low-carbon economy;
 - b) Avoiding areas of vulnerability to climate change and flood risk. Where avoidance is not possible, impacts should be fully mitigated;
 - c) Developing restoration schemes which will contribute to addressing future climate change adaptation.

Justification

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

The nature and scale of new minerals development will influence the extent to which climate change resilience measures will be most effective and appropriate.

Mineral development can provide a number of opportunities to mitigate and adapt to the impacts of future climate change. This could include:

- Restoration of mineral sites and restoration schemes that include measures such as flood water storage, the creation of biodiversity habitats, living carbon sinks, wider ecosystem services
- The use of on site renewable energy installations
- The use of sustainable modes of transport, low emission vehicles, travel plans

• Sustainable Drainage Systems (SuDS), water efficiency and adaptive responses to the impacts of excess heat and drought

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

SP4: Minerals Provision

What you told us at the Issues and Options Stage...

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

Issues and Options Sustainability Appraisal Findings:

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

Introduction

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

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

POLICY SP4 – MINERALS PROVISION

- 1. The strategy for the supply of minerals in Nottinghamshire is as follows:
 - a) Identify suitable land for mineral extraction to maintain an adequate and steady supply of minerals during the plan period;
 - b) Give priority to the extension of existing sites, where economically, socially and environmentally acceptable;
 - c) Allow for development on non-allocated sites where a need can be demonstrated; and
 - d) Ensure the provision of minerals in the plan remains in-line with wider economic trends through regular monitoring.
- 2. All proposals for mineral development must demonstrate that they have prioritised the avoidance of adverse social, economic and environmental impacts of the proposed development, or make use of appropriate mitigation measures.

Justification

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

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

SP5: Sustainable Transport

What you told us at the Issues and Options Stage...

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

Introduction

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

Minerals development therefore has the potential to generate large volumes of HGV traffic which can have adverse impacts on local communities in terms of noise, air pollution, vibration and dust. Increased levels of traffic can also cause potential safety issues for other road users and increase the level of greenhouse gas emissions impacting on the climate.

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

POLICY SP5 – SUSTAINABLE TRANSPORT

- 1. All mineral proposals should seek to maximise the use of alternatives to road transport such as river barge transport. All new mineral working and mineral related development should be located as follows:
 - a) within close proximity to existing markets to minimise transport movement; and
 - b) within close proximity to the County's main highway network and existing transport routes in order to avoid residential areas and minor roads and minimise the impact of road transportation.
- 2. Proposals requiring the bulk transport of minerals or minerals waste/fill by road will be required to demonstrate that more sustainable forms of transport are not viable.
- 3. All minerals proposals will be subject to a Transport Assessment and will be required to mitigate against any anticipated transport impacts of the development highlighted and improve accessibility and safety for all modes of travel.
- 4. Where appropriate developer contributions will be sought for transport/ highway improvements.

Justification

Minerals in Nottinghamshire are predominantly transported by road, generating significant HGV movements which can impact on local amenity,

environmental quality and climate issues. The National Planning Policy Framework highlights the importance of reducing both greenhouse gases and congestion. Consequently, developments which generate significant movement should be located so as to minimise the need for travel and maximise the use of sustainable means of transport.

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

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

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

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

SP6: The Built and Natural Environment

What you told us at the Issues and Options Stage...

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

Issues and Options Sustainability Appraisal Findings:

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

regard to promoting sustainable patterns of movement and protecting high quality agricultural land;

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

Introduction

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

POLICY SP6 – THE BUILT AND NATURAL ENVIRONMENT

- 1. All mineral development proposals will be required to deliver a high standard of environmental protection and enhancement and ensure that new development does not adversely impact on the following unless it can be demonstrated that there is an overriding need for a development and any impacts can be fully mitigated and/or compensated for:
 - International, national, regional and local nature conservation sites and priority habitats and species as identified in the Nottinghamshire LBAP;
 - Sites of geological interest;
 - Historic (designated and non-designated), archaeological and cultural assets;
 - Landscape and townscape character;
 - Best and most versatile agricultural land and soil;
 - Flood risk;
 - Infrastructure;
 - Highways;
 - Community amenity; and
 - Water quality and air quality.

Justification

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

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

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

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

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

National policy states that the significance of the most important heritage assets and their settings should be protected, and that balancing the need for development against potential harm to heritage assets needs to be proportionate. This is reflected in current minerals policy. One local issue concerns the current Minerals Local Plan designation of an area of national archaeological importance near South Muskham. The site has a very high concentration of crop marks present and there is a lack of detailed information about the nature of the remains. The basis of this designation needs to be reappraised before it is considered for designation in the new Plan.

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

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

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

extraction in the Trent and Idle Valleys will result in the substantial permanent loss of agricultural land to wetland which along, with other development pressures, is causing a continuous erosion of the County's finite agricultural resources.

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

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

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

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

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

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

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

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

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

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

SP7: The Nottinghamshire Green Belt

Introduction

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

POLICY SP7 – THE NOTTINGHAMSHIRE GREEN BELT

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

Justification

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

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