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From: Jenna Conway [REDACTED]
Sent: 11 October 2019 15:29
To: Planning Policy; Steven Osborne-James
Cc: 'Bradshaw, John'
Subject: Nottinghamshire Minerals Local Plan - Publication Version
Attachments: TAR-014-M Notts MLP Publication Draft - 11.10.2019.pdf

Follow Up Flag: Follow up
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Steven,

Please find attached representations to the Nottinghamshire Minerals Local Plan Publication Plan on behalf of our client Tarmac Trading Ltd.

I trust that the attached are self-explanatory. However, we welcome opportunity to discuss in further detail.

I would be grateful if you could please keep us informed on progress with the MLP and we wish to attend the Examination.

Kind regards,

Jenna

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My Ref: TAR-014-M

Your Ref: Publication Plan Consultation

Date: 11th October 2019

Planning Policy Team
Nottinghamshire County Council
County Hall
West Bridgford
Nottingham
NG2 7QP

Dear Sir/Madam,

NOTTINGHAMSHIRE MINERALS LOCAL PLAN – DRAFT PLAN CONSULTATION

Thank you for allowing us opportunity to comment on the above consultation document. We are making representations on behalf of our client Tarmac Trading Ltd (Tarmac). Tarmac have a number of existing mineral operations, handling and processing infrastructure within the County (identified below). Operations include sand and gravel operations, hard rock operations, as well as a cement depot (Barnstone). Tarmac also operate an industrial limestone operation across the County border within Derbyshire. However, there is a wider landholding containing industrial limestone resource to sustain operations longer term contained within Nottinghamshire.

Current Operations include:

- Langford Quarry – Sand and Gravel
- Besthorpe Quarry – Sand and Gravel
- Bestwood Quarry – Sherwood Sandstone
- Girton Quarry – Sand and Gravel (currently mothballed)
- Sturton Quarry – Sand and Gravel (permission implemented but inactive)
- Nether Langwith – Limestone
- Calverton/Burntstump – Sherwood Sandstone
- Cromwell Quarry – River wharf receiving river dredgings

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Tarmac has responded to the Mineral Planning Authority's Issues and Options document and Draft Plan in 2018. In addition, Tarmac prepared a number of submissions promoting sites for further aggregate production within the County. Sites promoted to the emerging Nottinghamshire Minerals Local Plan include:

Extensions to existing operations:

- Langford Quarry - South & West Extension (planning permission issued 6th September 2018 ref no 3/16/01689/CMA) – sites considered to form part of the landbank
- Langford Quarry - North Extension – proposed allocation
- Besthorpe Quarry - East Extension (east of Northcroft Lane) – proposed for allocation
- Bestwood Quarry – North Extension & East Extension (East extension subject to a planning Application ref no 7/2017/1491NCC has now been approved and is contained within the landbank figures – North Extension proposed allocation

Greenfield Operations

- Great North Road – North – not proposed for allocation
- Great North Road – South - not proposed for allocation
- Botany Bay – Allocated at Draft Plan but not proposed for allocation at the Publication Draft stage
- Newark/Burridge Farm - not proposed for allocation

Tarmac have reviewed the findings of the Sustainability Appraisal and the Site Assessment document. The response to Policy MP2 – site specific sand and gravel provision includes comments on the findings of the Sustainability Appraisal and places doubt on the scoring and justification for non-allocation of promoted sites.

[Background Evidence – Local Aggregate Assessment](#)

The latest evidence base document concerning mineral demand is contained within the Local Aggregate Assessment (LAA) published in May 2019 (containing 2017 data).

Tarmac maintains that the LAA does not give a full portrayal of the sand and gravel demand forecast for the Plan period. As a general comment, an overall decline in sales (contrary to the majority of the East Midlands where there has been a general increase in sales) is not necessarily reflective of a fall in demand. The productive capacity of active operations (both plant capacity, operational constraints (e.g. planning conditions/HGV restrictions) and the number of active sites) play a role in the overall amount of sand and gravel that can be supplied.

Table 2 shows the permitted sand and gravel quarries within Nottinghamshire. Whilst this indicates a strong position in terms of the permitted landbank, there are significant reserves contained at inactive sites (reserves at Sturton and Girton are a very significant proportion of the total permitted reserve). There are also reserves at many sites which are constrained under processing plant, stocking grounds and roadways. Some sites only have small amounts of permitted reserve remaining which poses questions over continuity and longevity of supply over the Plan period. It is vitally important that there is clear data and evidence base to demonstrate that productive capacity can be maintained year on year to meet anticipated demand as well as overall demand over the Plan period. This means ensuring that there are sufficient/adequate sites operational at any one time.

Tarmac's representations to the Mineral Local Plan consultation have always included an edited version of the MLP delivery schedule which demonstrates this point and how it could be achieved through necessary allocations over the Plan period. This also shows a projected reduction in output at Sturton to 100,000tpa as opposed to the 500,000tpa referenced in the LAA due to operational constraints of working this site.

Paragraph 3.6 refers to maintaining a geographical spread of reserves which Tarmac support. However, as per comments above, the total permitted tonnages/landbank in the Idle Valley are affected by a significant proportion of reserve within Sturton which is currently inactive. The importance of the Idle Valley resource (49% of total reserves – table 3) needs to be maintained as it is relied upon for supply to the South Yorkshire/Doncaster markets. There is a strong case for additional operational sites to be provided in the Idle Valley to ensure that this important supply is maintained.

Paragraph 3.11 identifies that 60% of the total sand and gravel extracted is exported making Nottinghamshire an important for sand and gravel supply within the Region. Paragraph 3.13 identifies imports of 530,000 tonnes potentially indicating that there are not sufficient sites operating to meet demand.

Paragraph 3.14 refers to the distance aggregate will travel to market. Whilst typically the average may be 30 miles, this is only the case where there is sufficient permitted reserve. Markets will dictate the demand and it may become more economically viable for aggregate to travel further if mineral reserves become depleted. This point is made in the LAA where it is recognised that the South Yorkshire and Doncaster markets may need to be served from markets further afield than the Idle Valley, with reference being made to sites within the Newark resource area (para 5.19). This is in addition to the potential pull on the Nottinghamshire resource to meet an evidenced shortfall in sand and gravel reserves, resources and production capacity in Leicestershire (para 5.21 refers). The regional reliance on sand and gravel resource from Nottinghamshire is not fully considered. Whilst the Aggregate Working Party Annual Monitoring Report alludes to potential future issues, there are no clear indications of how any potential long term effects will be addressed other than that they will be monitored.

Paragraph 5.21 refers to the supply position within Leicestershire. Reference should be made to both a shortfall in allocations for the Plan period as well as production capacity being reduced over the next 2-3 years as reserves become exhausted. There is significant uncertainty over sand and gravel supply from Leicestershire with only Lockington Quarry currently having identified extensions and proven reserves to supply sand and gravel through the Plan period. This is likely to have a profound impact on aggregate supply patterns for adjacent authorities – particularly authorities such as Nottinghamshire where there are long term sand and gravel reserves and resources with the ability to serve markets which have previously been supplied from production sites in Leicestershire.

Paragraph 3.19 refers to Leicestershire and Derbyshire remaining confident that they can continue to meet future/anticipated demand for crushed rock. However, there have been concerns raised from the South East and London AWP's to the most recent Leicestershire LAA over the longevity of reserves and being able to meet crushed rock demand long term. Crushed rock supply from Leicestershire is at maximum capacity with annual production from the rail linked quarries meeting the annual production requirement. This results in some vulnerability to meeting supply needs if demand increases.

Paragraph 3.35 refers to the lack of new quarries becoming active. The lack of an adopted MLP over the past 10 years will also have impacted green field sites being brought forward. Industry will be reluctant to commit to the investment and risk without an allocation in the Plan.

Paragraph 4.10 refers to a fall in output as a result of resource depletion and a falling number of active sites. This needs to be quantified and evidenced. Reference is made to a reduction in output being the result of Sturton not having been implemented. However, this reiterates the point made above regarding the number of active sites available to meet anticipated demand and production requirements. There should not be an assumption/reliance that sites can always maintain certain levels of production. It is important that there is the flexibility that production can be maintained from a selection of sites. Whilst Sturton contains a large amount of permitted reserve, the site is located some 15-20 miles further east than the sites historically worked in the Idle Valley north of Retford. This additional distance to market has a considerable impact on the market area it will supply.

At paragraph 4.14, reference should be made to the variable physical properties and colour (ranging from red to yellow) of the Sherwood sandstones. This is a particular feature of this particular mineral in terms of the production of building/mortar sand in distinct market areas which may influence demand. The sands are not readily interchangeable because of those physical differences, and reserve / landbank figures alone may be misleading in terms of the need to maintain supply of sand produced from the Sherwood Sandstone resources across Nottinghamshire.

The section on future growth reviews infrastructure, commercial and residential development which may influence demand. Whilst it is accepted that it is difficult to quantify the amount of mineral that will be required and exact sources of supply, the NPPF requires LAA's to forecast future demand (para 207). In this regard, the use of 10 year average sales – which for all intents and purposes is a monitoring exercise – is a useful starting point and annual reviews of sales as part of the LAA are helpful. However, the evidence base needs to provide the justification for Plans to provide flexibility in policy or through the number of allocations to respond positively to upturns in demand. The number of active sites producing aggregate will increase the level of perceived sales if the demand is there. Sales should in no way be construed as a limit/ceiling to new sites coming forward.

In this regard, Paragraph 5.30 refers to it being 'unnecessary to identify additional aggregate reserves to meet future growth over the Plan period'. This requires further clarification – does this mean that there is no justification for additional allocations over and above the requirements based on the 10 year average sales? This appears to be at odds with the expected demand discussed in section 5 of the LAA and as referred above, limits the flexibility that should be built into the Plan.

The above factors have skewed the available and, critically, the operational landbank. Sales data indicates that there is a lower level of production but not necessarily that there is a lower demand. This is evidenced by the varying supply picture within Nottinghamshire and how it differs to that of neighbouring Authorities who are experiencing consistent increases in sales (see table below – data taken from the EMAWP 2017 Annual Monitoring Report). The following table also indicates the significance of sand and gravel sales from Nottinghamshire within the East Midlands region and that a large percentage of overall sand and gravel supply comes from a large number of operating units.

MPA	Number of Active sand and gravel Production Units	Total 10 year sales	10 year sales average – 2008-2017	3 year sales average – 2015 - 2017
Nottinghamshire	11	18.96	1.9	1.73
Leicestershire	5	11.58	1.16	1.46
Derbyshire	4	10.10	1.01	1.12
Lincolnshire	11	20.58	2.06	2.25
Northamptonshire	2	3.29	0.33	0.33

In addition to sales figures indicating a decline in production (influenced by the recession and the above factors), the Mineral Planning Authority should give further consideration to anticipated future demand. It is incorrect to assume that export levels will continue at current/historic rates. The Mineral Planning Authority should review the growth projections and likely demand this will place on Nottinghamshire resources. The EMAWP group may be the best forum to table these discussions.

The Mineral Planning Authority should be setting out clear evidence of its co-operation with adjoining authorities regarding demand and supply scenarios for sand and gravel which are likely to have an impact on supply and demand of sand and gravel from within Nottinghamshire during the Plan period to 2036 (as per paragraph 27 of the NPPF which refers to circumstances when development needs may need to be met elsewhere).

Publication Draft Plan Consultation

Paragraph 2.3 identifies the significant overlap of housing areas, business and employment between Nottingham and South Yorkshire as well as Lincolnshire, Leicestershire and Derby which is supported. However, recognition should also be made of the potential pull on mineral resources to meet the anticipated demands from these growth areas. Particularly given the proximity of active operations to County boundaries (Key Diagram). Conversely paragraph 2.4 acknowledges that growth within Nottingham could affect surrounding areas. This duty to cooperate is a key theme which should be given increased status within the Plan. There are concerns as outlined above in regard to the LAA that there is a general assumption that 'trends' for export/import will continue.

Paragraph 2.27 identifies that Nottinghamshire has traditionally supplied large amounts of sand and gravel to neighbouring Authorities. The result of the high quality of the resource as well as a shortage of material in other areas. The paragraph identifies that this trend is likely to continue. However, contradicts itself by referencing the resource depletion in the Idle Valley (north of the County) which could reduce the amount exported. Regardless of the location of active sand and gravel operations, the demand for mineral will still continue. Adjoining Authority areas such as Nottinghamshire where there are significant reserves of sand and gravel available (albeit not necessarily currently in active operations) will need to address this within their Plan under the requirements of Paragraph 25 of the NPPF.

These are issues fundamental to securing steady and adequate supply of mineral from Nottinghamshire and should be given more prominence throughout the document. It is considered that the cross boundary relationship with neighbouring authorities, particularly in regard to mineral supply should be identified taking into account:

1. cross boundary mineral supply from Nottinghamshire – e.g. to South Yorkshire, and Leicestershire in light of their identified lack of available sand and gravel resources and production capacity to meet demand over the Plan period
2. The lack of available crushed rock/limestone resource within the County and therefore the heavy reliance on import from adjoining Authority areas
3. The availability of infrastructure links - particularly good road network and therefore links to market in assisting to secure mineral supply
4. The overlap of housing, business, infrastructure and employment links with Derbyshire and Leicestershire are identified but there is currently no reference to an overlap of mineral supply issues

5. The relationship with other mineral authorities and duty to cooperate in Plan preparation should be elevated. The Duty to Cooperate document indicates that numerically there is sufficient reserve to meet anticipated demand. However, there are concerns with this approach based on operational constraints to permitted sites
6. The anticipated development needs for housing, employment and infrastructure provision (including HS2) which will have significant implications for the wider West Midlands aggregate markets

Strategic Objectives

Strategic Objective 1 and a locational strategy to securing mineral supply is supported. This approach maintains the spread of operations across the County and maintains a security in supply to the specific markets that these serve. As well as seeking to 'efficiently deliver resources', the objective should include 'effectively deliver' resources to ensure that operational capacity in addition to permitted reserves is available to meet anticipated demand.

The principle of Strategic Objective 2 is supported. However, the title should be to provide a sufficient supply of minerals – this will encompass the requirement for adequate provision based on a review of anticipated demand over the Plan period as well as a steady supply of mineral to ensure that the operational capacity of operations can meet the annual production requirements as advocated by paragraph 203 of the NPPF.

Strategic Policies

Policy SP1 – Minerals Provision

The general policy on minerals provision should ensure that the Plan maximises its flexibility to respond to changes in demand. As we have advocated through previous representations, the 10 years sales average alone does not give an accurate portrayal of the demand scenario for Nottinghamshire. Closure of long established sand and gravel quarries, non-replenishment of reserves, continuing impact from the 2008 recession on production capacity and production movements out of the County, have all impacted output from Nottinghamshire. The reduction in sand and gravel output over the 10 year period should not be translated into a long term reduction in demand in Nottinghamshire.

Section (a) of Policy SP1 states that the strategy will be to identify 'suitable land for mineral extraction to maintain a steady and adequate supply of minerals during the Plan period'. This is not considered positively prepared or in accordance with the NPPF and is therefore unsound. It is suggested that 'sufficient' (rather than 'suitable') is more appropriate in accordance with paragraph 203 of the NPPF.

Extensions to existing sites form a logical progression from an operating perspective to secure additional mineral supply and are often sustainable and avoid needless sterilisation. Tarmac encourages 'support' for extensions to ensure maximum flexibility in securing continued supply from existing operations. All sites have an operational limit/constraint which means that whilst they will continue to contribute to demand, there will be a need for new greenfield sites to be brought forward to make up any operational capacity shortfall and to provide an effective continuity as existing operations become exhausted. The lead in period for development of a greenfield mineral production site can be at least 5 years, and an overlap between existing production and replacement production is likely to be required. At some stages of the Plan period it is therefore likely that there will be higher production capacity as the transition between existing and replacement sites takes effect. Further comments on the site specific approach to this and increasing flexibility in the Plan are found below under the aggregate provision policies.

Policy SP1, sections (c) and (d) allow for other minerals development on non allocated sites providing that a need can be demonstrated and ensuring the provision of minerals remains in line with wider economic trends through regular monitoring. Reliance on the 10 year sales average influenced heavily by a recession is not likely to reflect demand during a period of economic upturn/growth particularly given the significant level of new housing and infrastructure planned for during the Plan period. The strategy for minerals within the Plan needs to ensure that there is certainty but also some flexibility and opportunity for operators to invest in the development of mineral production sites throughout the Plan period where there is a clear need for mineral supply to meet demand which cannot otherwise be met. There is concern that reliance on average sales data and historic trends does not provide the opportunities/flexibility for new sites to come forward.

The justification for Policy SP1, specifically paragraph 3.9, emphasises the need to maintain a landbank for different mineral types. Whilst this is supported, it is important that the operating capacity is sufficient to meet the predicted annual production guideline.

Policy SP2 – Biodiversity led Restoration

Whilst Tarmac support paragraph 3.11 and a 'restoration led approach' when considering mineral operations, it is considered that a biodiversity led approach/focus taken by Policy SP2 is overly onerous, not an effective strategy and is therefore unsound. As opposed to being categorical about 'significantly enhancing' biodiversity (paragraph 3.12), the policy should be supportive where it is 'possible' or 'appropriate'. The policy as worded makes no reference/acknowledgment to the beneficial use of land and the opportunities/potential aspirations of landowners to have land restored back to economic/commercial/agricultural after uses. Paragraph 3.14 goes part way to recognising that there needs to be a balance/weighting of restoration considerations but it neglects to reference the economic potential, instead referring only to social/recreation and environmental opportunities. Paragraph 3.14 discusses restoration for leisure or agriculture. Leisure and agricultural

restoration are the most common forms of restoration strategy. We agree with the sentiment that there are opportunities to incorporate biodiversity/habitat enhancement but there should not be emphasis on a biodiversity led approach.

This policy should be retitled to 'restoration led approach to minerals development' to provide emphasis on a restoration focus without being overly prescriptive of restoration type. In addition, the policy makes no acknowledgement of the long term financial burden on ecological management post restoration and who has to fund and manage these areas.

Paras 3.23 to 3.25 should commence with the wording 'If restoration allows, priority habitats ...'. This would be more effective in delivering the Plan and strategy to reflect the comments made above.

Policy SP3 – Climate change

In accordance with the NPPF, new development should be directed to areas outside of flood zones. However, the policy as worded does not acknowledge that minerals can only be worked where they are found. In the case of sand and gravel and river sand and gravels working will often fall within areas of flood risk. Notwithstanding this, the policy and sub text should acknowledge that minerals development is considered an appropriate form of development within a flood zone in accordance with the planning practice guidance, Table 2: Flood Risk Vulnerability Classification, Paragraph: 066 Reference ID: 7-066-20140306. We do not object to the Policy but consider the above should be recognised within the sub text.

Policy SP4 – Sustainable Transport

Whilst seeking to support the use of sustainable modes of transport, the policy should be worded to acknowledge/recognise the potential for impact upon the viability of mineral extraction.

Minerals can only be worked where they are found. The requirement to be located close to proposed markets is overly onerous, not positively prepared or an effective strategy and is therefore considered to be unsound. The value of the product and the availability locally will determine the distance it needs to travel. The pull of resource into the South Yorkshire and Doncaster market areas is a good example of this. It is considered that this policy is overly onerous and discredits the geographical spread/location strategy which is being pursued by the Mineral Planning Authority.

Policy SP4 should therefore be amended to read:

1. All mineral proposals should seek to maximise the use of sustainable forms of transport, including barge, rail, conveyor and pipeline where possible and viable

2. Where it can be demonstrated that there is no viable alternative to road transport, all new mineral working and mineral related development should be located as close as possible to the County's main highway network and existing transport routes in order to avoid residential areas, minor roads, and minimise the impact of road transportation.

The suggested amendments above will therefore negate the requirement for paragraph 3.41 within the policy justification. Alternative modes of transport will be supported within the provided that it can be demonstrated that to deliver it would not affect the viability/deliverability of mineral sites.

Policy SP5 – The Built, Historic and Natural Environment

Tarmac support the recognition within paragraph 3.45 that detrimental impact on the natural and built environment as a result of mineral extraction is temporary in nature and can bring about many environmental benefits. In addition, paragraph 3.51 acknowledges that in regard to heritage and cultural assets, mineral development provides major opportunities to understand the County's rich archaeological heritage.

Policy SP5 as worded is a repeat of other environmental policy and is not positively prepared and is therefore considered unsound. The policy as worded does not recognise the weighting of all facets of sustainable development that should be applied when considering applications for development. In regard to mineral extraction, whilst there may be potential for environmental impact, the economic benefit of mineral extraction should be afforded 'great weight' (paragraph 205 of the NPPF). In addition, the significance of impact depends on the significance of the asset it affects. Paragraph 171 of the NPPF states that Plans should, 'distinguish between the hierarchy of international, national and locally designated sites'. As such it is considered this policy is unnecessary and could be deleted.

Paragraph 3.63 should be deleted as issues associated with infrastructure is handled under the provisions of the Mining Code.

Policy SP7 – Minerals Safeguarding, Consultation Areas and Associated Minerals Infrastructure

It is considered that Policy SP7 is not positively prepared, an effective strategy or consistent with the NPPF and is therefore unsound. Policy SP7 should refer to 'known' locations of specific mineral resource as opposed to 'economically important' in accordance with paragraph 204 of the NPPF. This would recognise that mineral resource is a finite resource. Extraction of resource may not be economically viable at one stage but may become so as reserves deplete.

It is considered that the Minerals Plan would be more effective if it was to define more specific Mineral Consultation Areas. The proposed approach to define consultation areas on

the same scale as safeguarding areas could mean that large amounts of development will be caught within an MSA/MCA which would be onerous on developers having to potentially submit minerals assessments and the MPA in assessing the potential for impact of development on mineral resource/mineral associated infrastructure.

As well as safeguarding mineral associated infrastructure, rail heads should be expanded to include rail heads at coal fired power stations. A wharf facility at Colwick is specifically referenced for safeguarding. Tarmac has existing river wharf facilities at Besthorpe Quarry (loading) and Cromwell Quarry (receiving) which are referenced on the Policies Maps and Tarmac supports this.

The importance of Local Plans (District and Borough Council) in understanding and appreciating the role of safeguarding and defining areas/sites within Local Development Plan Documents should be explained within the Mineral Plan. The planning system is a tiered system with the policies contained within the Mineral Plan and Local Plan pertinent to the consideration of Planning Applications at County and District level. The MPA has an important role in ensuring mineral safeguarding is not perceived as just a County function but guiding and supporting Local Authorities to appreciate they also have a role to play in accordance with the Planning Practice Guidance.

In light of the above and the identification of safeguarding areas on the policies maps Plan 4 should not be required.

Paragraph 3.90 is contrary to the NPPF paragraph 204 (e) and should be deleted. Policies should safeguard all ancillary infrastructure and the NPPF does not distinguish that only strategic facilities should be safeguarded. Whilst it may be unnecessary to identify all facilities on policies maps, the policy wording itself ensures that these facilities will be safeguarded.

Policies regarding safeguarding should make reference to the 'agent of change' identified at paragraph 182 of the NPPF. This seeks to ensure that the onus is on Applicants for new development to put in place adequate mitigation to ensure that the development would not place unreasonable restrictions on existing businesses/operations.

[Minerals Provision](#)

Policy MP1 – Aggregate Provision

Policy MP1 is not considered positively prepared and is therefore unsound.

Comments regarding the analysis of predicted aggregate demand have been presented within the section regarding the Local Aggregate Assessment above.

The 10 years average sales figures are not the most appropriate methodology for forecasting aggregate demand. Forecasts of demand should be based on a rolling average of 10 years sales data, other relevant information and through assessment of all other supply options. The 10 years average sales are heavily influenced by the impact of the recession. This is particularly apparent given the picture across the East Midlands which in all other cases have seen increases in sales figures. Whilst, recycled and secondary aggregate has a role to play in meeting demand in some circumstances it cannot be relied upon for ensuring continuity in supply. In addition, given the location of the County it is unlikely that demand can be met from other sources (for example marine). Considering this, the other relevant local information is particularly important in forecasting future demand in the County. Considering the above the Mineral Planning Authority is underproviding sufficient sand and gravel resource over the Plan period. We support the MPA in their previous approach which reviewed sales data pre and post-recession to give a greater appreciation of likely anticipated demand in recession and a period of economic growth.

The operational capacity of permitted operations within the County needs consideration to ensure that anticipated demand is met. A decline in sales is not necessarily an indication of a decline in demand. Production moving outside of the County will impact upon perceived sales figures as well as sites/resource not being replaced when exhausted.

A Delivery schedule has been prepared as Appendix 1 to the Draft Plan. Tarmac have enclosed an edited version (Appendix 1a) which shows the available production capacity from existing sites and proposed allocations as proposed within the Plan against the identified annual requirement for sand and gravel. The sites proposed for sand and gravel extraction including allocations are insufficient to even meet that depressed annual requirement. An edited version is also enclosed at Appendix 1b which shows how additional allocations could assist in meeting the identified shortfall.

Although the perceived landbank is sufficient at the start of the Plan period, sites will become exhausted during the Plan period and provision should be made for replacements.

The Plan should not focus or specify a definitive/maximum amount of mineral provision. The sales data is an indication of current demand and should not be perceived as a maximum requirement. The Plan needs to provide flexibility to support additional sites/resources coming forward during the Plan period to meet demand/operational requirements to serve existing/future markets. Policy M1 should be updated to provide a more realistic sand and gravel provision figure which is reflective of economic growth at pre-recession levels. As a minimum the policy should be clear that the provision of sand and gravel, Sherwood Sandstone and Crushed Rock are minimum requirements.

Part 2 of the Policy or as a minimum the justification section should advocate the need for the Plan to be flexible and the ability to respond quickly and positively to upturns in demand.

Section 3 of the policy does not make any allowance for the benefit of sustainable extensions to existing operations in securing continued delivery of mineral as advocated by the Strategic Policy SP2.

Policy MP2 – Sand and Gravel Provision

It is considered that Policy MP2 is not positively prepared or an effective strategy and is therefore unsound. Insufficient sand and gravel reserves are being allocated to ensure a steady and adequate supply of sand and gravel.

Tarmac are supportive of the approach to work permitted reserves as well as allocating extensions to existing operations and through the provision of new greenfield sites. There needs to be allowance in the Plan for both extensions and new greenfield sites. However, the Plan should provide flexibility and policy should be supportive in securing extensions to existing operations, this ensures a continuation in supply without sterilising mineral reserves. The Plan needs to build in an element of flexibility to address the issue of long term longevity of mineral operations in Nottinghamshire – only 4 sand and gravel sites identified in Policy MP2 have long term and significant production capacity. There should not be a reliance on a Review of the Plan to fill any identified need gaps during the Plan period. These should be addressed from the start to provide security/assurances to operators to secure investment. Potential ‘Preferred Areas’ or Areas of Search’ may assist in the process.

We support the Council in adopting a locational approach to mineral development sites to ensure there is a spread in sites to meet anticipated demand. However, operational capacity constraints still apply (imposed by plant capacity, planning conditions or HGV routing agreements) which can limit production / distribution to meet demand in some market areas. These are all important considerations in locating new sites for mineral development. There should not be a sole reliance on their physical location in the County. Besthorpe Quarry and Girton Quarry (currently mothballed) for example have vehicle movement restrictions through S106 planning agreements which forces HGV routing northward. As a result, those sites are generally more aligned to the North Nottinghamshire / Doncaster / Humberside market areas as opposed to Newark.

Tarmac are very disappointed and surprised that the Botany Bay Quarry site has not been included as an allocation in the Plan. The permitted resource and proposed allocations do not at any time over the Plan period meet the proposed annual requirement for sand and gravel (1.7mt). The Tarmac revised Delivery Schedule (appendix 1a and 1b) clearly illustrates this point. Reference is made in the most recent LAA that sand and gravel reserves from the Idle Valley are depleting whilst recognising the important role they play in maintaining sand and gravel supply within and outside the County (paragraph 4.15 of the Draft MLP). Further commentary is provided in regard to the sustainability appraisal and site assessment

document at the end of these representations. It is not clear what the justification is for removing Botany Bay as a suitable and deliverable allocation when the site has been included for allocation in previous Plan drafts. The MPA's Duty to Cooperate is stating that supply from Nottinghamshire to the South Yorkshire market will continue in the mid-long term. However, the delivery schedule is clear that there are insufficient reserves being allocated to meet this historic (411,000 tonnes pe annum) supply. An assumption that Sturton will produce 500,000 tonnes per annum is not realistic and Tarmac have confirmed that tonnages from this site are unlikely to exceed much beyond 100,000 tonnes per annum. There is a clear case for additional sand and gravel sites to be allocated in the north of the County.

There is also a clear case for additional allocation of green field sand and gravel sites to be allocated to come into production during the Plan period. The serious decline in sand and gravel reserves and projected production capacity in Leicestershire is clearly evidenced through the Leicestershire Mineral & Waste Local Plan review and sites have been promoted into the Nottinghamshire Local Mineral Plan review to meet that identified shortfall and the consequential need for alternative supply from adjoining authority areas. Tarmac's promoted site 'Great North Road (North)', near Kelham meets that objective and would deliver a long term sand and gravel production site with a sustainable output of 250,000 tonnes per annum to serve the Nottingham (potentially as a replacement to Cromwell) and North East Leicestershire market over the plan period to 2036. The Great North Road (North) site should therefore be allocated in the Plan. Again, Preferred Areas or Areas of Search may be a more effective strategy in regards to long term supply.

The Great North Road (South) site has a proven significant future sand and gravel resource which would provide a natural long term extension to the Great North Road (North) site.

The combined sand and gravel resources at the "North" and "South" sites would provide a stable long term supply facility to meet the likely strong demand for construction materials in the Nottingham / NE Leicestershire markets throughout and beyond the 2036 Plan period.

In addition, Tarmac's proposed new green field extraction site at Burridge Farm, which is proposed to use river barge transportation to feed sand and gravel to a proposed new processing plant at the former Cromwell Quarry site previously operated by Lafarge, would also provide some additional support production capacity in the second part of the Plan period. The Cromwell plant site is well situated with good access onto the A1 interchange at Cromwell. The Burridge Farm site would not have capacity to operate at high output levels due to likely physical constraints on barge transportation along the River Trent through Cromwell Lock.

Policy MP3 – Sherwood Sandstone

The LAA recognises the high level of export to markets outside the County due to limited resources elsewhere. As per comments on sand and gravel, there is a need where resource

exists to maintain production and operating capacity to meet demand. The Plan should identify appropriate extensions to existing operations or new sites to meet demand. Identified demand based on sales is a minimum requirement of the Plan and there should be flexibility built into the Plan to allow sites to come forward. The plan should address anticipated demand from outside of the County. As per comments on Policy MP2 an additional criteria regarding modest extensions should be included to ensure flexibility in the Plan and to allow the continued supply of Sherwood Sandstone which is not just important within Nottinghamshire.

The Plan should recognise the unique properties of the sand as well as markets. Colour variances as well as properties of the sand are also important factors and therefore additional reserves (as allocations or new sites) should not solely be based upon estimated demand based on sales figures.

Policy MP4 – Crushed Rock

As with the case for sand and gravel there should not be a reliance/assumption that supply chains will continue. As worded the policy is not positively prepared and is therefore unsound.

It is likely that there is a wider demand for crushed rock within the County than that met by Nether Langwith. Crushed rock requirements are met from imports (Leicestershire 70% and Derbyshire). Policy should be flexible and supportive to increase indigenous crushed rock supply. The Plan should also be clear that Nottinghamshire is not self sufficient in crushed rock supply and is reliant on neighbouring East Midlands Authority areas to maintain supply.

The crushed rock supply situation within the East Midlands should also be monitored closely as there are substantial reserves constrained in mothballed sites and those sites that benefit from rail link have limited production capacity to meet current demand levels. Any significant upturn in demand may result in crushed rock demand not being able to be met – particularly when competing with markets in the south east.

Policy MP5 – Secondary and recycled aggregates

Tarmac support the MPA in seeking the use of alternative aggregates and the appreciation that there are limits on how far alternatives can substitute primary aggregate. Whilst support for alternative aggregate should be encouraged in the Plan, the contribution should be viewed as a 'bonus' over and above the required amount of primary aggregate. This is reflective of the NPPF (para 204 (b)) which states that local Plans should take account of the, 'contribution that substitute or secondary and recycled materials and minerals waste would make'. The reduction in ash materials from coal fired power stations is also likely to increase the demand for primary aggregate over the Plan period to address this specific resource shortfall. The approach to recycled aggregates reflects the Mineral Products Association

Long Term Aggregates Demand and Supply Scenarios Paper which indicates that the potential for recycling has reached an optimum level (approximately 28-30% volume).

Policy MP9 – Industrial Dolomite Provision

Policy MP9 is not considered positively prepared and is therefore unsound. Reserves of industrial dolomite are of international importance and the resource itself is scarce with only a small number of sites within the UK. As such there will always be a need for the resource, therefore the policy should be reworded to state that:

‘Proposals for industrial dolomite extraction will be supported providing that development does not give rise to any unacceptable levels of environmental impact’.

Whilst additional resource areas do not need to be identified as an allocation, the resource within Nottinghamshire should be identified within the Plan and recognised as a proven resource to be safeguarded.

Development Management Policies

Policy DM4 – Protection and Enhancement of Biodiversity and Geodiversity

Policy DM4 is not an effective strategy and not in compliance with the NPPF, particularly in regard to the approach on local wildlife sites. It is therefore considered unsound. Paragraph 175 of the NPPF advises that ‘if significant harm to biodiversity cannot be avoided...’ then planning permission should be refused. Policy DM4 should be amended to reflect the significance of harm test to allow a judgement to be made as opposed to a blanket approach to all impacts and rating all ecological/biodiversity interests at the same level. The NPPF does not advocate a loss of local wildlife site to be unacceptable if the avoidance, mitigation and compensation tests have been met. In addition, there is no requirement in the NPPF for public benefit to justify an effect on ecological/biodiversity habitat except in the case of irreplaceable habitat.

Impacts on populations of priority species or areas of priority habitat needing to be ‘wholly exceptional’ is not in accordance with the NPPF.

Part 3 of the policy should be reworded to maximise opportunities for securing net gains in biodiversity in accordance with paragraph 174 (part b) of the NPPF.

Other Considerations

Monitoring

Given the concern regarding the anticipated demand for sand and gravel over the Plan period, the Plan needs to set out a very clear strategy on monitoring and review to ensure that it can respond quickly enough to changes in economic circumstances. How many LAA's will trigger a Review? What level of productive capacity will trigger a Review?

Sustainability Appraisal

General Comments

As we have stated as part of previous consultation responses on other MLP Drafts, the weighting of each of the Sustainability Appraisal objectives should be explained and how these will be used to assess the Plan policies and any sites promoted for allocation. Currently the SA Objectives are heavily weighted to potential environmental effect. However, economic and social facets of sustainability are critical elements relating to minerals development – i.e. maintaining supply, deliverability, access and proximity to market, beneficial restoration objectives, non-sterilisation of known resource by promoting extensions to existing operations etc. Attention is drawn to the NPPF and that 'minerals are essential to support sustainable economic growth'. As well as providing an 'adequate' amount, the SA has failed to take account of the need to plan for a 'steady and adequate' supply of aggregate (paragraph 207). There is a requirement for the MPA to recognise that as well as ensuring they have a sufficient landbank of resource that the Plan maintains aggregate provision across the whole Plan period – comments above on operational capacity are particularly pertinent to this.

Site Specifics

In light of overall concerns regarding long term mineral supply and the County underproviding sufficient sites and aggregate to ensure a steady and adequate supply of mineral to meet needs, Tarmac have undertaken a review of the Sustainability Appraisal and Site Selection Methodology and Assessment document concerning the assessment of their sites. Following this review, it is our opinion that the Plan is unsound and the strategy for allocating sites is not justified. As per previous representations, the Sustainability Scoring is also, in our view, inaccurate. Revised Sustainability Appraisal matrixes are appended to this submission at Appendix 2.

As we have referred to above, it is firmly our view that the release of reserves at Botany Bay during the Plan period is essential to secure long term aggregate supply in the north of the County and beyond into the South Yorkshire market.

The Botany Bay site has been subject to environmental and technical assessment to frame the submitted Scoping Request. In addition, assessment work is continuing to support a Planning Application. The site has continued to be promoted by an operator and has land owner support casting no doubt on its delivery. The Site Selection Methodology document identifies that Botany Bay as a new Greenfield site will have larger landscape impacts than other extensions within the Idle Valley. However, it is not considered that adequate assessment has been carried out to support this view.

The Botany Bay site was proposed for allocation during the last round of consultation (September 2018) yet has now been discounted. The site appears to have been discounted as an appropriate allocation based upon the perceived landscape impacts of a new greenfield site compared with those resulting from extensions to existing operations. However, the Landscape and Visual Assessment background paper has not been updated as part of this consultation – it is still dated May 2018 and predates the Draft Plan consultation when Botany Bay was proposed for allocation. The overall landscape scores have not changed between these two consultation documents, yet the conclusions drawn from the same data, have. Furthermore, it is of concern to Tarmac that the detailed analysis of sites concludes that ‘there are other sites of similar size able to serve the North of Nottinghamshire, but these form extensions and have consequently lower landscape impact’. It is unclear which sites this statement is referring to and we are concerned that this appears to be a very significant factor in the site no longer being proposed for allocation.

Landscape character summary assessment between the last round of Consultation (September 2018) contained within the Sustainability Appraisal has not significantly changed from this version (Appendix 3). Botany Bay scores the same operational and long term impact scoring as the Scrooby extension proposed for allocation.

Based on the above, it can only be assumed that Botany Bay has been discounted based on a numerical calculation of required sand and gravel supply. As we have advocated throughout the representations this approach is flawed. No consideration has been given to the productive capacity of the much smaller operations proposed in the Idle Valley as well as their longevity to meet demand over the Plan period. Tarmac do not wish to object to the other sites promoted in the Idle Valley. It is their view that additional supply will be required. In overall Plan objective terms, the Strategy to deliver a Steady and Adequate supply of minerals cannot be met without the allocation of Botany Bay.

In addition, the Plan recognises that there are limited resources available in the Idle Valley and long term supply to the north of the County will rely on supply from the Newark area. In addition, the Newark area will become a focus area to meet demands from Leicestershire, the Barnstone cement works and South Nottinghamshire when the Brooksby site closes in circa 5 years. The sites at Great North Road are well connected to these markets by the A46 and will form replacements to operations due to close later in the Plan period. In addition, Burrige Farm will also make a substantial contribution from this area during the Plan period, utilising barging infrastructure.

I trust that the above comments are helpful. Should you have any queries or wish to discuss any of the points raised in more detail, please do not hesitate to contact us. We wish to be kept informed of progress of the Minerals Local Plan and attend the Examination.

Yours faithfully,

Jenna Conway
Heatons

Botany Bay

Sustainability Appraisal Objectives	Effect – Operational Period	Effect – Long Term	Commentary (NCC)	Mitigation (NCC)	Tarmac Comments	Revised Scoring Effect - Operational period	Revised Scoring Effect – Long Term
1. Ensure that adequate provision is made to meet local and national mineral demand.	+2	0	The size of the estimated reserves of this site would contribute positively to meeting national and local demand for sand and gravel.	Not applicable.	Given the locational strategy this relatively large site assists in contributing to local and wider needs and will likely secure sand and gravel to the South Yorkshire markets.	+3	0
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	-1	+1	<p>The Chesterfield Canal (Shireoaks to Welham) LWS demarcates the southern site boundary, Sutton and Lound Gravel Pits SSSI and Idle Valley Nature Reserve LWS lie to the north-east. There is therefore the potential for direct and indirect impacts on these sites, including from noise, dust, NOx and changes to hydrology and hydrogeology.</p> <p>Restoration would be to a combination of water-based nature conservation and agricultural land use to complement existing land uses and landscape character within the vicinity (including the presence of the Chesterfield Canal and Nature Reserves within the local area). This would not maximise the biodiversity gain that could be achieved on the site.</p>	<p>Ecological surveys and hydrological reports.</p> <p>Buffer zones.</p> <p>Appropriate biodiversity-led restoration scheme to deliver creation of appropriate priority habitats, with restoration to arable farmland restricted to the current amount of high quality agricultural land.</p>	<p>The views into the site from the adjoining canal are relatively minor and localised and therefore should not be considered as significant in the context of the other industrial land use settings along the route of the canal.</p> <p>The restoration scheme will deliver a visually interesting wetland habitat adjoining the canal.</p>	-1	+1
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+1	0	The site is well related to the main highway network, with direct access off the A638.	Not applicable.		+1	0
4. Protect the quality of the historic environment, heritage assets and their settings above and below ground.	-1	1	<p>This site is bounded by the non designated heritage asset of the Chesterfield canal and includes Lady Bridge, a C18th brick canal bridge, which could be potentially adversely affected.</p> <p>The setting of listed buildings, including Ranby Hall and buildings associated with the Babworth Park Estate, which is a registered park and garden, could be affected.</p> <p>The potential for non-designated archaeology at this site is medium and the level of risk is medium. In the long term the impact on these designated heritage</p>	<p>Buffer zones and screening.</p> <p>Archaeological surveys to determine the nature and significance of any remains, then adequate provision to be made for preservation, excavation or recording.</p> <p>Metal detector on conveyor belt to seek metal objects of archaeological interest.</p>		-1	1

			assets could be positive or negative depending on the nature of the restoration.				
5. Protect and enhance the quality and character of our townscape and landscape.	-3	-2	The landscape assessment resulted in a combined landscape score of 82/100 for the operational period so the impact is considered to be very negative. The landscape assessment for post-restoration resulted in a combined landscape score of 60/100 so the impact is considered to become negative.	During the operational phase a landscape buffer will be required to the A638 and the Chesterfield Canal. Restoration should include replacement of the hedge lines (refer to species list for the Idle Lowlands LCA, not including Ash).	The mitigation section refers to necessary mitigation strategies to lessen impact. If these are implemented it is considered that the negative impact would be reduced. Long term the land will be restored largely to agricultural use using the importation of inert infill material. Long term impact is therefore reduced	-2	-1
6. Minimise impact and risk of flooding	-1	0	The site is in Flood Zone 1 (low probability of flooding).	Meeting the requirements of the Environment Agency and Internal Drainage Board. Implementation of SuDs.	The assessment on impact should be neutral as it is not in an area sensitive to flooding.	0	0
7. Minimise any possible impacts on, and increase adaptability to, climate change.	?	1	During the operational phase the effect would be dependent on the details of operation, e.g. whether the most energy efficient plant and machinery were used. Thereafter, in the long term, the effect could be positive or negative in terms of increasing the resilience of flora and fauna to climate change depending on the details of restoration.	Implement restoration which provides appropriate habitats to help to increase the resilience of flora and fauna.	Standard good practice and environmental management codes used by the operator ensure that plant and machinery operated efficiently.	0	0
8. Protect high quality agricultural land and soil.	-1	?	Approximately 64% of the site is Grade 3b (not high quality) agricultural land, with smaller areas of Grade 3a (approximately 29%) and Grade 2 (approximately 7%) which are best and most versatile agricultural land. The majority of the site, therefore, is not within the best and most versatile agricultural land categories. Proposed restoration would include some agricultural land, but it is not clear whether it would match the existing quality.	Restoration to high quality agricultural land if possible.	Good soils management strategies would ensure that the best and most versatile agricultural soils are retained and reused in restoration. The proposals involve the importation of imported inert materials to maximise beneficial restoration. The restored agricultural land would be subject to a 5 year aftercare programme.	-1	+1
9. Promote more efficient use of land and resources.	0	?	No significant effect during the operational period.	Not applicable.		0	0

10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	?	?	Effect would be dependent on the details of operation, such as the use of energy efficient plant and machinery and renewable energy sources for on-site power.	Not applicable.	Standard good practice and environmental management codes used by the operator ensure that plant and machinery operated efficiently	0	0
11. Protect and improve local air quality.	-2	0	Operations would create dust. The mineral would be exported by HGV with an estimated 72 two way movements (36 HGV arrivals and 36 HGV departures) per average working day.	Environmental protection measures to reduce dust.	Mitigation measures would be controlled by planning condition to ensure that the development does not give rise to unacceptable levels of dust. The operational effect should therefore not be significant.	-1	0
12. Protect and improve water quality and promote efficient use of water.	-2	0	Potential de-watering and discharge into watercourses. The site is situated on a primary aquifer, which could be of concern from a groundwater perspective.	Hydrological reports. On-site protection measures to avoid contamination of surface waters and groundwater. Meeting the requirements of the Environment Agency and Internal Drainage Board.	Water management would be carried out through formal water Abstraction and Discharge permits. Impacts likely to be temporary and localised. Groundwater monitoring / mitigation strategies can be developed and delivered based on adopted schemes for existing operational sand and gravel sites (eg Langford Quarry)	-1	0
13. Support wider economic development and promote local job opportunities.	+2	0	This site has the potential to produce a large quantity of aggregate which is important in supporting the wider economy particularly through meeting the demands of the construction industry. There is also the potential for creation of some local job opportunities.	Not applicable.	NPPF paragraph 205 advocates 'great weight' to be given to the benefits of mineral extraction including to the economy. Whilst local jobs will be created the longer term effects of mineral extraction in providing essential housing and infrastructure requirements should be recognised.	+3	0
14. Protect and improve human health and quality of life.	-2	0	The site is in close proximity to settlements so during the operational phase there could be a negative effect resulting from noise, dust and traffic. In terms of visual amenity, there would be a significant adverse change to views from a limited number of residential properties. No RoWs are directly affected, but the Chesterfield Canal towpath, which adjoins the southern site boundary, could potentially be affected by noise and dust during the operational phase.	Environmental protection measures to reduce noise and dust. Transport Assessment. Public access opportunities to nature conservation areas as part of restoration scheme.		-2	0

			No enhancement of public access to recreational opportunities is included in the restoration proposals.				
Total	-8	-1				-2	+1

Scale	Likely effect on the SA Objective
+3	The proposal is likely to have a very positive impact
+2	The proposal is likely to have a positive impact
+1	The proposal is likely to have a slightly positive impact
0	No significant effect / no clear link
?	Uncertain or insufficient information on which to determine impact
1	The proposal could have a positive or a negative impact depending on how it is implemented
-1	The proposal is likely to have a slightly negative impact
-2	The proposal is likely to have a negative impact
-3	The proposal is likely to have a very negative impact

Burrige Farm							
Sustainability Appraisal Objectives	Effect – Operational Period	Effect – Long Term	Commentary (NCC)	Mitigation (NCC)	Tarmac Comments	Revised Scoring Effect - Operational period	Revised Scoring Effect – Long Term
1. Ensure that adequate provision is made to meet local and national mineral demand.	+2	0	The size of the estimated reserves of this site would contribute positively to meeting national and local demand for sand and gravel.	Not applicable.		+2	0
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	-1	+3	The site is immediately adjacent to The Fleet, South Muskham LWS, close to Trent West Bank LWS, and is immediately across the River Trent from Winthorpe Lake LWS. There is therefore the potential for direct and indirect impacts to these sites, including from noise, dust, NOx and changes to hydrology and hydrogeology. It is stated that restoration would be to nature conservation afteruses, comprising wet grassland and open water with marginal planting and reedbed. Such restoration could lead to significant biodiversity benefits, depending on the scale of habitat created.	Ecological surveys and hydrological reports. Buffer zones. Appropriate restoration scheme to enhance biodiversity.		-1	+3
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+2	0	The extracted mineral would be transported by barge along the River Trent for processing at Cromwell Quarry, which has an existing wharf facility, approximately 4.5 km to the north. Access from Cromwell is well-related to the main highway network (A1).	Not applicable.	Whilst the barging of sand and gravel is a sustainable mode of transport, there are some operational constraints / uncertainties regarding the capacity of the lock at Cromwell Weir for the passage of river barges. Production may be more constrained compared to traditional land based mineral extraction.	+2	0
4. Protect the quality of the historic environment, heritage assets and their settings above and below ground.	-2	1	The south-eastern corner of the site adjoins the listed Winthorpe Bridge, the setting of which could be adversely affected, along with the setting of Winthorpe Conservation Area and the listed Winthorpe Hall. A Scheduled Monument (Iron Age settlement) lies to the NW, with the north-west corner of the site adjoining it. Remains extend on air photographic mapping up to The Fleet which forms the western edge of the site. There is potential for an adverse impact on the setting. The area should be regarded as of high potential for buried remains. The	Buffer zones and screening. Archaeological surveys to determine the extent of any impact on the scheduled monument and whether mitigation is feasible. Archaeological surveys to determine the nature and significance of non-designated remains, then adequate provision		-2	1

			<p>site also has high archaeological potential in terms of non-designated features.</p> <p>In the long term the impact on the settings of these heritage assets could be positive or negative, depending on the nature of restoration.</p>	<p>to be made for preservation, excavation or recording.</p> <p>Metal detector on conveyor belt to seek metal objects of archaeological interest. Appropriate restoration proposals.</p>			
5. Protect and enhance the quality and character of our townscape and landscape.	-2	-1	<p>The landscape assessment resulted in a combined landscape score of 67/100 for the operational period so the impact is considered to be negative. The landscape assessment for post-restoration resulted in a combined landscape score of 48/100 so the impact is considered to be slightly negative.</p>	<p>The operational phase should incorporate screening from the river and Winthorpe Lakes and a buffer to protect The Fleet LWS.</p> <p>Restoration should strengthen riparian planting, incorporate grassland, particularly adjacent to the River Trent corridor.</p> <p>Open water mosaic could add value to existing Winthorpe lakes and mineral working to south.</p>		-2	-1
6. Minimise impact and risk of flooding	-3	1	<p>The site is located within Flood Zone 3 (high flood risk area) and the functional flood plain and is largely bounded by the River Trent. Sand and gravel workings are considered to be water-compatible development which is appropriate in this zone provided that there is no net loss of floodplain storage, water flows are not impeded and flood risk is not increased elsewhere.</p> <p>There is insufficient information at this stage on which to determine the impact of operations and as it is a high risk zone the effect has to be considered as very negative.</p>	<p>Meeting the requirements of the Environment Agency and Internal Drainage Board.</p> <p>Flood Risk Assessment (FRA) including consideration of flood flow and storage.</p> <p>Implementation of SuDs</p>	<p>This takes an unnecessarily negative stance on the potential for impact. As advised mineral operations are water compatible and flood resilience and compensation would be incorporated as part of any restoration proposals. Operational working would have to consider the potential for flood impact. Restoration offers opportunities for flood resilience measures to be included as part of restoration.</p>	-1	+1
7. Minimise any possible impacts on, and increase adaptability to, climate change.	?	1	<p>During the operational phase the effect would be dependent on the details of operation, e.g. whether the most energy efficient plant and machinery were used. Thereafter, in the long term, the effect could be positive or negative in terms of increasing the resilience of flora and fauna to climate change depending on the details of restoration.</p>	<p>Implement restoration which provides appropriate habitats to help to increase the resilience of flora and fauna.</p>	<p>Standard good practice and environmental management codes used by the operator ensure that plant and machinery operated efficiently.</p>	0	0
8. Protect high quality agricultural land and soil.	-2	-2	<p>The site is a mix of Grade 3a (best and most versatile) and Grade 3b (not high quality) agricultural land. Restoration would be biodiversity-led.</p>	<p>Restoration to high quality agricultural land if that is possible.</p>	<p>The Burridge Farm site is proposed to be restored to nature conservation afteruses comprising wet grassland and open water with marginal planting and reed bed and retention of vegetation along outer site boundaries. There</p>	-2	-2

					are no realistic opportunities for import of inert materials to restore the land to agricultural use.		
9. Promote more efficient use of land and resources.	0	?	No significant effect during the operational period.	Not applicable.		0	0
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	?	?	Effect would be dependent on the details of operation, such as the use of energy efficient plant and machinery and renewable energy sources for on-site power.	Not applicable.	Standard good practice and environmental management codes used by the operator ensure that plant and machinery operated efficiently	0	0
11. Protect and improve local air quality.	-2	0	Operations would create dust. The mineral would be exported by HGV with an estimated 54 two way movements (27 HGV arrivals and 27 HGV departures) per average working day.	Environmental protection measures to reduce dust.	Material would be transported by barge to processing facilities at the former Cromwell Quarry plant site.	-1	0
12. Protect and improve water quality and promote efficient use of water.	-1	0	Potential de-watering and discharge into watercourses.	Hydrological reports. On-site protection measures to avoid contamination of surface waters and groundwater. Implementation of SuDs. Meeting the requirements of the Environment Agency and Internal Drainage Board (IDB).		-1	0
13. Support wider economic development and promote local job opportunities.	+2	0	This site has the potential to produce a large quantity of aggregate which is important in supporting the wider economy particularly through meeting the demands of the construction industry. There is also the potential for creation of some local job opportunities.	Not applicable.	NPPF paragraph 205 advocates 'great weight' to be given to the benefits of mineral extraction including to the economy. Whilst local jobs will be created the longer term effects of mineral extraction in providing essential housing and infrastructure requirements should be recognised.	+3	0

14. Protect and improve human health and quality of life.	-1	+2	<p>There are settlements in close proximity to the site so during the operational phase there could be a negative effect resulting from noise, dust and traffic. However there would not be any detrimental impact on residents in terms of visual amenity. No RoWs are affected.</p> <p>There is potential for long term benefits, through restoration allowing for public access and linking into the RSPB's 'Bigger and Better' vision for landscape scale delivery of wetland habitats.</p>	<p>Environmental protection measures to reduce noise and dust.</p> <p>Transport Assessment.</p>		-1	+2
Total	-8	+2				-4	+3

Scale	Likely effect on the SA Objective
+3	The proposal is likely to have a very positive impact
+2	The proposal is likely to have a positive impact
+1	The proposal is likely to have a slightly positive impact
0	No significant effect / no clear link
?	Uncertain or insufficient information on which to determine impact
1	The proposal could have a positive or a negative impact depending on how it is implemented
-1	The proposal is likely to have a slightly negative impact
-2	The proposal is likely to have a negative impact
-3	The proposal is likely to have a very negative impact

Great North Road North

Sustainability Appraisal Objectives	Effect – Operational Period	Effect – Long Term	Commentary (NCC)	Mitigation (NCC)	Tarmac Comments	Revised Scoring Effect - Operational period	Revised Scoring Effect – Long Term
1. Ensure that adequate provision is made to meet local and national mineral demand.	+2	0	The size of the estimated reserves of this site would contribute positively to meeting national and local demand for sand and gravel.	Not applicable.	Given the locational strategy this site assists in local and wider needs and will secure sand and gravel to the local market as well as being well positioned to serve Nottingham and NE Leicestershire markets (due to its proximity to the A46) following projected exhaustion of reserves and closure of sand and gravel operations in Leicestershire, particularly at Brooksby Quarry, which currently supplies the Barnstone Cement works in Nottinghamshire.	+3	0
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	-1	+2	<p>The site adjoins Kelham Trent and Island LWS, and Kelham Pool LWS, and is close to a cluster of several other LWSs. There is therefore the potential for direct and indirect impacts to these sites, including through noise, dust, NOx and changes to hydrology and hydrogeology.</p> <p>The proposed restoration is stated as being to agriculture, although it is stated that there is a 'significant opportunity' to create enhanced grassland habitats in the corridor adjoining the Trent. The scheme may therefore deliver at least modest biodiversity benefits. There is potential to create an extensive area of wet grassland (floodplain grazing marsh), which would deliver significant biodiversity benefits if done at scale, and would allow continued use as farmland through grazing</p>	<p>Ecological surveys and hydrological reports.</p> <p>Buffer zones.</p> <p>Appropriate restoration scheme to enhance biodiversity.</p>		-1	+2
3. Promote sustainable patterns of movement and the use of more	1	0	The site is well related to the main highway network, with direct access off the A616, however the A616 Great North Road junction with the A46 is heavily congested at peak times and the A46 around Newark is generally under a capacity strain, therefore lorry routing requires careful consideration.	Imposition of a lorry routing agreement or a similar management control to ensure that HGV traffic avoids inappropriate routes.		1	0

sustainable modes of transport.							
4. Protect the quality of the historic environment, heritage assets and their settings above and below ground.	-2	I	<p>This site is very close to the listed Kelham Bridge and within the setting of the listed Kelham Hall and Kelham Conservation Area. It is immediately adjacent to the listed Smeaton's Arches. It is highly likely that there will be adverse impacts on the settings of these built heritage assets.</p> <p>There are two Civil War era scheduled monuments within close proximity to the site and the settings of these (along with the non-designated heritage asset "Edinburgh Fort") may be adversely affected. The site also has medium to high potential for non designated archaeology.</p> <p>In the long term the impact on the settings of heritage assets could be positive or negative, depending on the nature of restoration.</p>	<p>Buffer zones and screening.</p> <p>Archaeological surveys to determine the nature and significance of non-designated remains, then adequate provision to be made for preservation, excavation or recording.</p> <p>Metal detector on conveyor belt to seek metal objects of archaeological interest.</p> <p>Appropriate restoration proposals.</p>		-2	I
5. Protect and enhance the quality and character of our townscape and landscape.	-3	-2	<p>The landscape assessment resulted in a combined landscape score of 77/100 for the operational period so the impact is considered to be very negative.</p> <p>The landscape assessment for post-restoration resulted in a combined landscape score of 64/100 so the impact is considered to be negative.</p>	<p>During the operational phase there would be a screening opportunity along the river and road corridor, particularly from Kelham and a buffer /stand off to protect the Civil War earthwork and river corridor should be provided.</p> <p>Restoration should include riparian and road side planting, hedgerow restoration and riverside pasture.</p>	<p>The working of the site would be long term as the reserves would extend beyond the Plan period. The development of the site would be progressive in terms of extraction and restoration. The site adjoins areas of large scale intensive industrial use (sugar beet factory immediately east of Great North Road) and therefore landscape impact should be seen in that context.</p> <p>Restoration is largely to agricultural use, with shallow water features along the river corridor creating visual interest. The long term landscape impact is therefore considered to be neutral at worst and therefore overstated.</p>	-2	0
6. Minimise impact and risk of flooding	-3	I	<p>The site is located within Flood Zone 3 (high flood risk area) and the functional flood plain. Sand and gravel workings are considered to be water compatible development which is appropriate in this zone provided that there is no net loss of floodplain storage, water flows are not impeded and flood risk is not increased elsewhere.</p>	<p>Meeting the requirements of the Environment Agency and Internal Drainage Board.</p> <p>Flood Risk Assessment (FRA) including consideration of flood flow and storage.</p> <p>Implementation of SuDs.</p>	<p>This takes an unnecessarily negative stance on the potential for impact. As advised mineral operations are water compatible and flood resilience and compensation would be</p>	-1	+1

			<p>There is insufficient information at this stage on which to determine the impact of operations and as it is a high risk zone the effect has to be considered as very negative.</p> <p>The Environment Agency has raised particular concern in relation to this site and flood risk, due to its proximity to the village of Kelham. This area is known for flooding and is the first area to be affected when the River Trent overtops.</p> <p>Impact in the long-term could be positive or negative depending on the nature of restoration.</p>		<p>incorporated as part of any restoration proposals.</p> <p>Operational working would have to consider the potential for flood impact. Restoration offers opportunities for flood resilience measures to be included as part of restoration.</p>		
7. Minimise any possible impacts on, and increase adaptability to, climate change.	?	1	<p>During the operational phase the effect would be dependent on the details of operation, e.g. whether the most energy efficient plant and machinery were used. Thereafter, in the long term, the effect could be positive or negative in terms of increasing the resilience of flora and fauna to climate change depending on the details of restoration.</p>	<p>Implement restoration which provides appropriate habitats to help to increase the resilience of flora and fauna.</p>	<p>Standard good practice and environmental management codes used by the operator ensure that plant and machinery operated efficiently.</p>	0	0
8. Protect high quality agricultural land and soil.	-2	?	<p>The site is predominantly Grade 2 and Grade 3a, which is best and most versatile agricultural land, with the remainder being Grade 3b which is not high quality.</p> <p>Restoration is proposed to be to agriculture, but it is not clear whether this would match the existing quality.</p>	<p>Restoration to high quality agricultural land if that is possible.</p>	<p>Good soils management strategies would ensure that the best and most versatile agricultural soils are retained and reused in restoration. The proposals involve the importation of imported inert materials to maximise restoration to agriculture.</p>	-1	-1
9. Promote more efficient use of land and resources.	0	?	<p>No significant effect during the operational period.</p>	<p>Not applicable.</p>		0	0
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	?	?	<p>Effect would be dependent on the details of operation, such as the use of energy efficient plant and machinery and renewable energy sources for on-site power.</p>	<p>Not applicable.</p>	<p>Standard good practice and environmental management codes used by the operator ensure that plant and machinery operated efficiently</p>	0	0
11. Protect and improve local air quality.	-2	0	<p>Operations would create dust.</p> <p>The mineral would be exported by HGV with an estimated 90 two way movements (45 HGV arrivals and 45 HGV departures) per average working day.</p>	<p>Environmental protection measures to reduce dust.</p>	<p>Mitigation measures would be controlled by planning condition to ensure that the development does not give rise to dust. The operational effect should therefore be neutral.</p>	-1	0

12. Protect and improve water quality and promote efficient use of water.	-1	0	Potential de-watering and discharge into watercourses	Hydrological reports. On-site protection measures to avoid contamination of surface waters and groundwater. Implementation of SuDs. Meeting the requirements of the Environment Agency and Internal Drainage Board (IDB).		-1	0
13. Support wider economic development and promote local job opportunities.	+2	0	This site has the potential to produce a large quantity of aggregate which is important in supporting the wider economy particularly through meeting the demands of the construction industry. There is also the potential for creation of some local job opportunities.	Not applicable.	NPPF paragraph 205 advocates 'great weight' to be given to the benefits of mineral extraction including to the economy. Whilst local jobs will be created the longer term effects of mineral extraction in providing essential housing and infrastructure requirements should be recognised.	+3	0
14. Protect and improve human health and quality of life.	-3	0	There are settlements in close proximity to the site so during the operational phase there could be a negative effect resulting from noise, dust and traffic. In terms of visual amenity, residential properties overlooking the River Trent off Kelham Lane to the south-east would have filtered views and there would be distant views from properties at Little Carlton and South Muskham, though filtered by vegetation. The Trent Valley Way long distance footpath could be adversely affected as it adjoins the site. In the long term there would be no significant effect as restoration is primarily for agriculture and no enhancement of public access to recreational opportunities is proposed.	Environmental protection measures to reduce noise and dust. Transport Assessment. Screen planting. Protection of the Trent Valley Way long distance footpath and improvements to RoW network on restoration.	All environmental mitigation would lessen the potential for impact on sensitive receptors to within acceptable levels. This can be achieved through the adoption of screening and landscape planting. Details would be confirmed at the planning application stage. The overall scoring should be reduced to a potential negative impact.	-2	0
Total	-13	0				-5	+2

Scale	Likely effect on the SA Objective
+3	The proposal is likely to have a very positive impact
+2	The proposal is likely to have a positive impact
+1	The proposal is likely to have a slightly positive impact
0	No significant effect / no clear link
?	Uncertain or insufficient information on which to determine impact
1	The proposal could have a positive or a negative impact depending on how it is implemented
-1	The proposal is likely to have a slightly negative impact
-2	The proposal is likely to have a negative impact

The proposal is likely to have a **very negative** impact

Great North Road South

Sustainability Appraisal Objectives	Effect – Operational Period	Effect – Long Term	Commentary (NCC)	Mitigation (NCC)	Tarmac Comments	Revised Scoring Effect - Operational period	Revised Scoring Effect – Long Term
1. Ensure that adequate provision is made to meet local and national mineral demand.	+2	0	The size of the estimated reserves of this site would contribute positively to meeting national and local demand for sand and gravel.	Not applicable.	Given the locational strategy this site assists in local and wider needs and will secure sand and gravel to the local market as an extension of operations to the north and as well as being well positioned to serve the Leicestershire market following projected cessation of sand and gravel operations in Leicestershire.	+3	0
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	-1	+2	<p>The site is immediately adjacent to the River Trent at Staythorpe LWS, the Kelham Road Grassland LWS, the Kelham Shingle Bank LWS and the Old Trent Dyke LWS. There is therefore the potential for direct and indirect impacts to these sites, including though noise, dust, NOx and changes to hydrology and hydrogeology.</p> <p>The proposed restoration is stated as being to agriculture, although it is stated that there is a 'significant opportunity' to create enhanced grassland habitats in the corridor adjoining the Trent. The scheme may therefore deliver at least modest biodiversity benefits. There is potential to create an extensive area of wet grassland (floodplain grazing marsh), which would deliver significant biodiversity benefits if done at scale, and would allow continued use as farmland through grazing. There is also the potential for the establishment of wet woodland next to the Trent, adjacent to existing areas of this habitat</p>	<p>Ecological surveys and hydrological reports.</p> <p>Buffer zones.</p> <p>Appropriate restoration scheme to enhance biodiversity.</p>		-1	+2
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	1	0	<p>Extracted material will be transported by conveyor to the Great North Road North site and from there onto the highway network.</p> <p>The site is therefore well related to the main highway network, with direct access off the A616, however the A616 Great North Road junction with A46 is heavily congested at peak times and the A46 around Newark is generally under a capacity strain, therefore lorry routing requires careful consideration.</p>	<p>Imposition of a lorry routing agreement or a similar management control to ensure that HGV traffic avoids inappropriate routes.</p>		1	0

4. Protect the quality of the historic environment, heritage assets and their settings above and below ground.	-2	I	<p>This site is very close to the listed Kelham Bridge and Church of St Wilfrid's, and it is likely to impinge on the setting of the historic parkland that forms part of the setting of Kelham Hall. The parkland is a non-designated heritage asset.</p> <p>It is also in close proximity to Kelham and Averham Conservation Areas. It is immediately adjacent to the listed Smeaton's Arches. It is highly likely that there will be adverse impacts on the settings of these built heritage assets.</p> <p>There are several scheduled monuments within close proximity to the site and the setting of these (along with the non-designated heritage asset "Edinburgh Fort") may be adversely affected. The site also has medium to high potential for non designated archaeology.</p> <p>In the long term the impact on the settings of these heritage assets could be positive or negative, depending on the nature of restoration.</p>	<p>Buffer zones and screening.</p> <p>Archaeological surveys to determine the nature and significance of non-designated remains, then adequate provision to be made for preservation, excavation or recording.</p> <p>Metal detector on conveyor belt to seek metal objects of archaeological interest.</p> <p>Appropriate restoration proposals.</p>		-2	I
5. Protect and enhance the quality and character of our townscape and landscape.	-3	-2	<p>The landscape assessment resulted in a combined landscape score of 85/100 for the operational period so the impact is considered to be very negative. The landscape assessment for post-restoration resulted in a combined landscape score of 72/100 so the impact is considered to be negative.</p>	<p>During the operational phase there would be a screening opportunity along the river and road corridor and a buffer /stand off to protect Old Trent Dyke LWS, the Civil War Redoubt and river corridor should be provided. Restoration should include riparian and road side planting, hedgerow restoration and riverside pasture.</p>	<p>The development would involve the importation of inert materials to achieve restoration largely to agriculture. The long term landscape impact is therefore considered to be less of an impact than stated.</p>	-2	-1
6. Minimise impact and risk of flooding	-3	I	<p>The site is located within Flood Zone 3 (high flood risk area) and the functional flood plain. Sand and gravel workings are considered to be water compatible development which is appropriate in this zone provided that there is no net loss of floodplain storage, water flows are not impeded and flood risk is not increased elsewhere.</p> <p>There is insufficient information at this stage on which to determine the impact of operations and as it is a high risk zone the effect has to be considered as very negative.</p> <p>The Environment Agency has raised particular concern in relation to this site and flood risk, due to its proximity to the villages of Kelham and Averham. Impact in the long-term could be positive or negative depending on the nature of restoration.</p>	<p>Meeting the requirements of the Environment Agency and Internal Drainage Board.</p> <p>Flood Risk Assessment (FRA) including consideration of flood flow and storage.</p> <p>Implementation of SuDs.</p>	<p>This takes an unnecessarily negative stance on the potential for impact. As advised mineral operations are water compatible and flood resilient and compensation would be incorporated as part of any restoration proposals. Operational working would have to consider the potential for flood impact. Restoration offers opportunities for flood resilience measures to be included as part of restoration.</p>	-1	+1

7. Minimise any possible impacts on, and increase adaptability to, climate change.	?	I	During the operational phase the effect would be dependent on the details of operation, e.g. whether the most energy efficient plant and machinery were used. Thereafter, in the long term, the effect could be positive or negative in terms of increasing the resilience of flora and fauna to climate change depending on the details of restoration.	Implement restoration which provides appropriate habitats to help to increase the resilience of flora and fauna.	Standard good practice and environmental management codes used by the operator ensure that plant and machinery operated efficiently.	0	0
8. Protect high quality agricultural land and soil.	-2	?	The site is predominantly Grade 2 and Grade 3a, which is best and most versatile agricultural land, with the remainder being Grade 3b which is not high quality. Restoration is proposed to be to agriculture, but it is not clear whether this would match the existing quality.	Restoration to high quality agricultural land if that is possible.	Good soils management strategies would ensure that the best and most versatile agricultural soils are retained and reused in restoration. The proposals involve the importation of imported inert materials to maximise beneficial restoration. The restored agricultural land would be subject to a 5 year aftercare programme.	-1	-1
9. Promote more efficient use of land and resources.	0	?	No significant effect during the operational period.	Not applicable.		0	0
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	?	?	Effect would be dependent on the details of operation, such as the use of energy efficient plant and machinery and renewable energy sources for on-site power.	Not applicable.	Standard good practice and environmental management codes used by the operator ensure that plant and machinery operated efficiently	0	0
11. Protect and improve local air quality.	-2	0	Operations would create dust. The mineral would be exported by HGV with an estimated 90 two way movements (45 HGV arrivals and 45 HGV departures) per average working day.	Environmental protection measures to reduce dust.	Mitigation measures would be controlled by planning condition to ensure that the development does not give rise to dust. The operational effect should not therefore be significant.	-1	0
12. Protect and improve water quality and promote efficient use of water.	-1	0	Potential de-watering and discharge into watercourses.	Hydrological reports. On-site protection measures to avoid contamination of surface waters and groundwater. Implementation of SuDs. Meeting the requirements of the Environment Agency and Internal Drainage Board (IDB).		-1	0

13. Support wider economic development and promote local job opportunities.	+2	0	This site has the potential to produce a large quantity of aggregate which is important in supporting the wider economy particularly through meeting the demands of the construction industry. There is also the potential for creation of some local job opportunities.	Not applicable.	NPPF paragraph 205 advocates 'great weight' to be given to the benefits of mineral extraction including to the economy. Whilst local jobs will be created the longer term effects of mineral extraction in providing essential housing and infrastructure requirements should be recognised.	+3	0
14. Protect and improve human health and quality of life.	-2	0	There are settlements in close proximity to the site so during the operational phase there could be a negative effect resulting from noise, dust and traffic. In terms of visual amenity, there would be no significant detrimental effect on residential properties. The Trent Valley Way long distance footpath would be disrupted by the conveyor route. In the long term there would be no significant effect as restoration is primarily for agriculture and no enhancement of public access to recreational opportunities is proposed.	Environmental protection measures to reduce noise and dust. Transport Assessment. Protection of the Trent Valley Way long distance footpath and improvements to RoW network on restoration.	All environmental mitigation would lessen the potential for impact on sensitive receptors to within acceptable levels. This would be confirmed at the planning application stage. The overall scoring should be reduced to a potential minor negative impact.	-1	0
Total	-12	0				-4	+1

Scale	Likely effect on the SA Objective
+3	The proposal is likely to have a very positive impact
+2	The proposal is likely to have a positive impact
+1	The proposal is likely to have a slightly positive impact
0	No significant effect / no clear link
?	Uncertain or insufficient information on which to determine impact
1	The proposal could have a positive or a negative impact depending on how it is implemented
-1	The proposal is likely to have a slightly negative impact
-2	The proposal is likely to have a negative impact
-3	The proposal is likely to have a very negative impact



**Nottinghamshire
County Council**

Nottinghamshire Minerals Local Plan

**Draft Minerals Local Plan
Sustainability Appraisal
Interim Report
July 2018**



Table 7: Potential Sites and Total Sustainability Appraisal Scores

SITE	SCORES	
	Operational period	Long-term
Sand and gravel		
Shelford	-10	-1
Barton in Fabis (Mill Hill)	-13	-3
Barton in Fabis (West)	-11	-2
East Leake North	-7	-2
Redhill	-11	-2
<hr/>		
Cromwell	-11	-2
Cromwell Triangle & Carlton River Meadows	-13	-6
Langford South & West	-10	+2
Langford North	-9	+1
Coddington	-7	-2
Besthorpe East	-8	+2
Burridge Farm	-8	+2
Great North Road North	-13	0
Great North Road South	-12	0
<hr/>		
Botany Bay	-8	-1
Bawtry Road	-4	0
Barnby Moor (Hanson)	-13	-1
Barnby Moor (Rotherham SG)	-12	-4
Scrooby, Thompson Land	-8	-1
Scrooby North	-7	-1
<hr/>		
Sherwood Sandstone		
Scrooby Top North	-5	0
Bestwood II East	-7	-3
Bestwood II North	-9	-2
<hr/>		
Clay		
Woodborough Lane	-3	-3
<hr/>		
Gypsum		
Bantycok	-7	-1

Full details of the site appraisal findings are set out in the site appraisal matrices included below in this report.

SITE NAME: <i>BOTANY BAY</i> NEW OR EXTENSION: New		MINERAL TYPE: Sand and gravel POTENTIAL CAPACITY: 2.44 million tonnes		
Sustainability Appraisal Objectives	Effect		Commentary	Mitigation
	Operational period	Long -term		
1. Ensure that adequate provision is made to meet local and national mineral demand.	+2	0	The size of the estimated reserves of this site would contribute positively to meeting national and local demand for sand and gravel.	Not applicable.
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	-1	+1	<p>The Chesterfield Canal (Shireoaks to Welham) LWS demarcates the southern site boundary, Sutton and Lound Gravel Pits SSSI and Idle Valley Nature Reserve LWS lie to the north-east. There is therefore the potential for direct and indirect impacts on these sites, including from noise, dust, NOx and changes to hydrology and hydrogeology.</p> <p>Restoration would be to a combination of water-based nature conservation and agricultural land use to complement existing land uses and landscape character within</p>	<p>Ecological surveys and hydrological reports. Buffer zones. Appropriate biodiversity-led restoration scheme to deliver creation of appropriate priority habitats, with restoration to arable farmland restricted to the current amount of high quality agricultural land.</p>

			the vicinity (including the presence of the Chesterfield Canal and Nature Reserves within the local area). This would not maximise the biodiversity gain that could be achieved on the site.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+1	0	The site is well related to the main highway network, with direct access off the A638.	Not applicable.
4. Protect the quality of the historic environment, heritage assets and their settings above and below ground.	-1	I	<p>This site is bounded by the non-designated heritage asset of the Chesterfield canal and includes Lady Bridge, a C18th brick canal bridge, which could be potentially adversely affected. The setting of listed buildings, including Ranby Hall and buildings associated with the Babworth Park Estate, which is a registered park and garden, could be affected.</p> <p>The potential for non-designated archaeology at this site is medium and the level of risk is medium.</p> <p>In the long term the impact on these designated heritage assets could be positive or</p>	<p>Buffer zones and screening.</p> <p>Archaeological surveys to determine the nature and significance of any remains, then adequate provision to be made for preservation, excavation or recording.</p> <p>Metal detector on conveyor belt to seek metal objects of archaeological interest.</p>

			negative depending on the nature of restoration.	
5. Protect and enhance the quality and character of our townscape and landscape.	-3	-2	The landscape assessment resulted in a combined landscape score of 82/100 for the operational period so the impact is considered to be very negative. The landscape assessment for post-restoration resulted in a combined landscape score of 60/100 so the impact is considered to become negative.	During the operational phase a landscape buffer will be required to the A638 and the Chesterfield Canal. Restoration should include replacement of the hedge lines (refer to species list for the Idle Lowlands LCA, not including Ash).
6. Minimise impact and risk of flooding.	-1	0	The site is in Flood Zone 1 (low probability of flooding).	Meeting the requirements of the Environment Agency and Internal Drainage Board. Implementation of SuDs.
7. Minimise any possible impacts on, and increase adaptability to, climate change.	?	1	During the operational phase the effect would be dependent on the details of operation, e.g. whether the most energy efficient plant and machinery were used. Thereafter, in the long term, the effect could be positive or negative in terms of increasing the resilience of flora and fauna to climate change depending on the details of restoration.	Implement restoration which provides appropriate habitats to help to increase the resilience of flora and fauna.
8. Protect high quality agricultural land and soil.	-1	?	Approximately 64% of the site is Grade 3b (not high quality)	Restoration to high quality agricultural land if possible.

			<p>agricultural land, with smaller areas of Grade 3a (approximately 29%) and Grade 2 (approximately 7%) which are best and most versatile agricultural land. The majority of the site, therefore, is not within the best and most versatile agricultural land categories.</p> <p>Proposed restoration would include some agricultural land, but it is not clear whether it would match the existing quality.</p>	
9. Promote more efficient use of land and resources.	0	?	No significant effect during the operational period.	Not applicable.
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	?	?	Effect would be dependent on the details of operation, such as the use of energy efficient plant and machinery and renewable energy sources for on-site power.	Not applicable.
11. Protect and improve local air quality.	-2	0	<p>Operations would create dust.</p> <p>The mineral would be exported by HGV with an estimated 72 two way movements (36 HGV arrivals and 36 HGV departures) per average working day.</p>	Environmental protection measures to reduce dust.

12. Protect and improve water quality and promote efficient use of water.	-2	0	Potential de-watering and discharge into watercourses. The site is situated on a primary aquifer, which could be of concern from a groundwater perspective.	Hydrological reports. On-site protection measures to avoid contamination of surface waters and groundwater. Meeting the requirements of the Environment Agency and Internal Drainage Board.
13. Support wider economic development and promote local job opportunities.	+2	0	This site has the potential to produce a large quantity of aggregate which is important in supporting the wider economy particularly through meeting the demands of the construction industry. There is also the potential for creation of some local job opportunities.	Not applicable.
14. Protect and improve human health and quality of life.	-2	0	The site is in close proximity to settlements so during the operational phase there could be a negative effect resulting from noise, dust and traffic. In terms of visual amenity, there would be a significant adverse change to views from a limited number of residential properties. No RoWs are directly affected, but the Chesterfield Canal towpath, which adjoins the southern site boundary, could potentially be affected by noise	Environmental protection measures to reduce noise and dust. Transport Assessment. Public access opportunities to nature conservation areas as part of restoration scheme.

			and dust during the operational phase. No enhancement of public access to recreational opportunities is included in the restoration proposals.	
Total	-8	-1		

Summary

- This site scores positively in terms of its contribution to the economic aspects of sustainability.
- The impact on biodiversity would be slightly negative during the operational period due to the proximity of LWSs and a SSSI. In the long-term the elements of nature conservation proposals included in the restoration scheme would result in a slightly positive impact but would not maximise biodiversity gain.
- There is a slightly negative impact on the historic environment during the operational period as the settings of a number of designated heritage assets could be adversely affected.
- The landscape assessment concluded that there would be a very negative impact during the operational period and negative effect in the long-term, but also identified some scope for mitigation measures.
- The loss of some high quality agricultural land would have a slightly negative effect in the short-term.
- The number of HGV movements during the operational period could have a slightly negative impact on local air quality.
- The impact on water quality could be negative, as the site is situated on a primary aquifer which could be of concern from a groundwater perspective, but there is scope for mitigation.
- During the operational period there could be a negative effect on quality of life for local residents as surrounding settlements could be adversely affected by noise, dust and traffic and visual amenity would be adversely affected for some residents, but there is some scope for mitigation.



Nottinghamshire Minerals Local Plan

Publication version

Sustainability Appraisal Report

May 2019

Table 6.4: Overview of the Site Appraisal Scores

SITE	SCORES	
	Operational period	Long-term
Sand and gravel		
Shelford	-10	-1
Barton in Fabis (Mill Hill)	-13	-3
Barton in Fabis (West)	-11	-2
East Leake North	-7	-2
Redhill	-11	-2
Cromwell	-11	0
Cromwell Triangle & Carlton River Meadows	-13	-6
Langford South & West	-10	+2
Langford North	-9	+1
Coddington	-7	-2
Besthorpe East	-8	+2
Burridge Farm	-8	+2
Great North Road North	-13	0
Great North Road South	-12	0
Flash Farm	-13	+3
Little Carlton	-13	-4
Botany Bay	-8	-1
Bawtry Road	-4	0
Barnby Moor (Hanson)	-13	-1
Barnby Moor (Torworth/Rotherham SG)	-10	-4
Scrooby, Thompson Land	-8	-1
Scrooby North	-7	-1
Sherwood Sandstone		
Scrooby Top North	-5	0
Bestwood II East	-7	-3
Bestwood II North	-9	-2
Clay		
Woodborough Lane	-3	-3
Gypsum		
Bantycok	-7	-1

Sustainability Appraisal Objectives		Effect		Commentary	Mitigation
		Operational period	Long-term		
1. Ensure that adequate provision is made to meet local and national mineral demand.		+2	0	The size of the estimated reserves of this site would contribute positively to meeting national and local demand for sand and gravel.	Not applicable.
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.		-1	+1	<p>The Chesterfield Canal (Shireoaks to Welham) LWS demarcates the southern site boundary, Sutton and Lound Gravel Pits SSSI and Idle Valley Nature Reserve LWS lie to the north-east. The site is also adjacent to Barnby Fox Covert which is ancient woodland. There is therefore the potential for direct and indirect impacts on these sites, including from noise, dust, NOx and changes to hydrology and hydrogeology.</p> <p>Restoration would be to a combination of water-based nature conservation and agricultural land use to complement existing land uses</p>	<p>Ecological surveys and hydrological reports.</p> <p>Buffer zones.</p> <p>Appropriate biodiversity-led restoration scheme to deliver creation of appropriate priority habitats, with restoration to arable farmland restricted to the current amount of high quality agricultural land.</p>

			and landscape character within the vicinity (including the presence of the Chesterfield Canal and Nature Reserves within the local area). This would not maximise the biodiversity gain that could be achieved on the site.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+1	0	The site is well related to the main highway network, with direct access off the A638.	Not applicable.
4. Protect the quality of the historic environment, heritage assets and their settings above and below ground.	-1	I	This site is bounded by the non-designated heritage asset of the Chesterfield canal and includes Lady Bridge, a C18th brick canal bridge, which could be potentially adversely affected. The setting of listed buildings, including Ranby Hall and buildings associated with the Babworth Park Estate, which is a registered park and garden, could be affected. The potential for non-designated archaeology at this site is medium and the level of risk is medium. In the long term the impact on these designated heritage assets could be positive or	Buffer zones and screening. Archaeological surveys to determine the nature and significance of any remains, then adequate provision to be made for preservation, excavation or recording. Metal detector on conveyor belt to seek metal objects of archaeological interest.

			negative depending on the nature of restoration.	
5. Protect and enhance the quality and character of our townscape and landscape.	-3	-2	The landscape assessment resulted in a combined landscape score of 82/100 for the operational period so the impact is considered to be very negative. The landscape assessment for post-restoration resulted in a combined landscape score of 60/100 so the impact is considered to become negative.	During the operational phase a landscape buffer will be required to the A638 and the Chesterfield Canal. Restoration should include replacement of the hedge lines (refer to species list for the Idle Lowlands LCA, not including Ash).
6. Minimise impact and risk of flooding.	-1	0	The site is in Flood Zone 1 (low probability of flooding).	Meeting the requirements of the Environment Agency and Internal Drainage Board. Implementation of SuDs.
7. Minimise any possible impacts on, and increase adaptability to, climate change.	?	1	During the operational phase the effect would be dependent on the details of operation, e.g. whether the most energy efficient plant and machinery were used. Thereafter, in the long term, the effect could be positive or negative in terms of increasing the resilience of flora and fauna to climate change depending on the details of restoration.	Implement restoration which provides appropriate habitats to help to increase the resilience of flora and fauna.
8. Protect high quality agricultural land and soil.	-1	?	Approximately 64% of the site is Grade 3b (not high quality) agricultural land, with smaller	Restoration to high quality agricultural land if possible.

			<p>areas of Grade 3a (approximately 29%) and Grade 2 (approximately 7%) which are best and most versatile agricultural land. The majority of the site, therefore, is not within the best and most versatile agricultural land categories.</p> <p>Proposed restoration would include some agricultural land, but it is not clear whether it would match the existing quality.</p>	
9. Promote more efficient use of land and resources.	0	?	No significant effect during the operational period.	Not applicable.
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	?	?	Effect would be dependent on the details of operation, such as the use of energy efficient plant and machinery and renewable energy sources for on-site power.	Not applicable.
11. Protect and improve local air quality.	-2	0	<p>Operations would create dust.</p> <p>The mineral would be exported by HGV with an estimated 72 two-way movements (36 HGV arrivals and 36 HGV departures) per average working day.</p>	Environmental protection measures to reduce dust.
12. Protect and improve water quality and promote efficient use of water.	-2	0	<p>Potential de-watering and discharge into watercourses.</p> <p>The site is situated on a primary aquifer, which could be of</p>	Hydrological reports. On-site protection measures to avoid contamination of surface waters and groundwater. Meeting the

			concern from a groundwater perspective.	requirements of the Environment Agency and Internal Drainage Board.
13. Support wider economic development and promote local job opportunities.	+2	0	This site has the potential to produce a large quantity of aggregate which is important in supporting the wider economy particularly through meeting the demands of the construction industry. There is also the potential for creation of some local job opportunities.	Not applicable.
14. Protect and improve human health and quality of life.	-2	0	<p>The site is in close proximity to settlements so during the operational phase there could be a negative effect resulting from noise, dust and traffic. In terms of visual amenity, there would be a significant adverse change to views from a limited number of residential properties.</p> <p>No RoWs are directly affected, but the Chesterfield Canal towpath, which adjoins the southern site boundary, could potentially be affected by noise and dust during the operational phase.</p> <p>No enhancement of public access to recreational</p>	<p>Environmental protection measures to reduce noise and dust. Transport Assessment.</p> <p>Public access opportunities to nature conservation areas as part of restoration scheme.</p>

			opportunities is included in the restoration proposals.	
Total	-8	-1		

Summary

- This site scores positively in terms of its contribution to the economic aspects of sustainability.
- The impact on biodiversity would be slightly negative during the operational period due to the proximity of LWSs and a SSSI. In the long-term the elements of nature conservation proposals included in the restoration scheme would result in a slightly positive impact but would not maximise biodiversity gain.
- There is a slightly negative impact on the historic environment during the operational period as the settings of a number of designated heritage assets could be adversely affected.
- The landscape assessment concluded that there would be a very negative impact during the operational period and negative effect in the long-term, but also identified some scope for mitigation measures.
- The loss of some high quality agricultural land would have a slightly negative effect in the short-term.
- The number of HGV movements during the operational period could have a slightly negative impact on local air quality.
- The impact on water quality could be negative, as the site is situated on a primary aquifer which could be of concern from a groundwater perspective, but there is scope for mitigation.
- During the operational period there could be a negative effect on quality of life for local residents as surrounding settlements could be adversely affected by noise, dust and traffic and visual amenity would be adversely affected for some residents, but there is some scope for mitigation.



**Nottinghamshire
County Council**

Nottinghamshire Minerals Local Plan

Draft site selection methodology
and assessment
July 2018

Sand & Gravel)			<ul style="list-style-type: none"> • The impact on biodiversity would be negative during the operational period. Long term impact would depend on restoration • The landscape assessment concluded that there would be a negative impact. • The site scores very negatively with regard to impact and risk of flooding. • The loss of some high quality agricultural land results in a negative impact. • The impact on quality of life and water quality could be negative, but in both cases there is scope for mitigation.
Botany Bay	-8	-1	<ul style="list-style-type: none"> • This site scores positively in terms of its contribution to economic aspects. • The impact on biodiversity, historic environment and (loss of) agricultural land would have a slightly negative impact. Regarding biodiversity, in the long-term the restoration scheme would result in a slightly positive impact. • The landscape assessment concluded that there would be a very negative impact during the operational period and negative effect in the long-term, but also identified some scope for mitigation measures. • The impact on water quality could be negative, but there is scope for mitigation. • During the operational period there could be a negative effect on quality of life.
Scrooby North	-7	-1	<ul style="list-style-type: none"> • This site scores slightly positively in terms of its contribution to economic aspects. • The impact on biodiversity would be slightly negative during the operational period. • The landscape assessment concluded that there would be a negative impact during the operational period and a slightly negative impact in the long-term, but also identified some scope for mitigation measures.

			considered against sustainability objectives, the site has very negative score during the operational period and slightly negative in the long term. The quarry is well located in the north of Nottinghamshire to be able to meet expected demand from the local area and south Yorkshire, however the annual output from quarry is expected to be very low and is not expected to be worked until late in the plan period reducing its potential contribution to overall demand. As a result of the above, it is not considered appropriate to include the proposal as an allocation in the Draft Minerals Plan.
Botany Bay	New	North Nottinghamshire	This medium sized site is considered deliverable as it has been promoted by a mineral operator. In overall assessment, there are no transport issues and landscape impacts are relatively moderate to high. When considered against sustainability appraisal objectives, the proposal has a moderately negative score in the operational period and a slightly negative long term score. The quarry is well located in north Nottinghamshire and would be able to meet expected demand from the local market and South Yorkshire over a large part of the plan period. As a result of the above it is considered appropriate to allocate the site in the draft minerals plan.
Scrooby North	Extension	North Nottinghamshire	This small extension is considered deliverable as it would maintain output from an existing permitted quarry. Overall, the assessment work undertaken identifies the transport impacts being appropriate and landscape impacts being relatively low. The appraisal against sustainability objectives reports only moderate negative score when the quarry is operational and a slightly negative score in the long term. The quarry is well located in the north of Nottinghamshire to be able to provide mineral to meet expected demand from the local area and South Yorkshire. As a result it is considered appropriate to allocate the site in the Draft Minerals Plan.
Scrooby Thompson Land	Extension	North Nottinghamshire	This small extension is considered deliverable as it would maintain output from an existing permitted quarry and is being promoted by the existing operator. Overall, the assessment work undertaken identifies the landscape impacts as being relatively low and the transport assessment considers this site appropriate. When appraised against sustainability objectives there is a moderate negative score when the quarry is operational and a slightly negative score in the long term. The quarry is well located in the north of Nottinghamshire to be able to provide mineral to meet expected demand from the local area and South Yorkshire. As a result it is considered appropriate to allocate the site in the Draft Minerals Plan.
Besthorpe East	Extension	Newark	This large extension is considered deliverable as it would maintain output from an existing permitted quarry and is promoted by the existing operator. Overall the assessment work concludes that there are no significant transport issues but there are relatively moderate



**Nottinghamshire
County Council**

Nottinghamshire Minerals Local Plan

Publication Version

Site selection methodology
and assessment

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				<ul style="list-style-type: none"> • During the operational period there could be a negative effect on quality of life for local residents as surrounding settlements could be adversely affected by noise, dust and traffic and visual amenity would be adversely affected for some residents, but there is some scope for mitigation.
3	Barnby Moor / Torworth (Rotherham Sand & Gravel)	-10	-4	<ul style="list-style-type: none"> • This site scores positively in terms of its contribution to the economic aspects of sustainability. • The impact on biodiversity would be negative during the operational period as there is an LWS adjoining the site and there are two SSSIs in the vicinity. In the long-term the impact could be positive or negative depending on whether restoration is biodiversity-led or not. • The landscape assessment concluded that there would be a negative impact both during the operational period and in the long-term, but also identified some scope for mitigation measures. • The site scores very negatively with regard to impact and risk of flooding as part of it is within Flood Zone 3, however the precise nature of the impact would have to be ascertained through a flood risk assessment. • The loss of some high-quality agricultural land results in a negative impact in both the short- and long-term. • The impact on water quality could be negative, as the site lies in Source Protection Zone 3 and on a primary aquifer, which is of concern from a groundwater perspective, but there is scope for mitigation. • During the operational period there could be a negative effect on quality of life for local residents as surrounding settlements could be adversely affected by noise, dust and traffic and visual amenity would be adversely affected for some residents, but there is some scope for mitigation.
4	Botany Bay	-8	-1	<ul style="list-style-type: none"> • This site scores positively in terms of its contribution to economic aspects. • The impact on biodiversity, historic environment and (loss of) agricultural land would have a slightly negative impact. Regarding biodiversity, in the

				<p>long-term the restoration scheme would result in a slightly positive impact.</p> <ul style="list-style-type: none"> • The landscape assessment concluded that there would be a very negative impact during the operational period and negative effect in the long-term, but also identified some scope for mitigation measures. • The impact on water quality could be negative, but there is scope for mitigation. • During the operational period there could be a negative effect on quality of life.
5	Scrooby North	-7	-1	<ul style="list-style-type: none"> • This site scores slightly positively in terms of its contribution to economic aspects. • The impact on biodiversity would be slightly negative during the operational period. • The landscape assessment concluded that there would be a negative impact during the operational period and a slightly negative impact in the long-term, but also identified some scope for mitigation measures. • The loss of some high-quality agricultural land results in a negative impact in the short-term. • The impact on water quality could be negative, but there is scope for mitigation. • During the operational period there could be a slightly negative effect on quality of life for local residents.
6	Scrooby Thompson Land	-8	-1	<ul style="list-style-type: none"> • This site scores slightly positively in terms of its contribution to the economic aspects of sustainability. • The impact on biodiversity would be slightly negative during the operational period as there are several LWSs and an SSSI in close proximity to the site. In the long-term the nature conservation elements included in the restoration scheme would result in a slightly positive impact but would not maximise biodiversity gain.

3	Barnby Moor / Torworth (Rotherham Sand and Gravel)	New	North Nottinghamshire	<p>This medium sized site has been promoted by a mineral operator. In overall assessment the site is considered acceptable in transport terms and has low to moderate landscape impacts. When considered against sustainability objectives, the site has very negative score during the operational period and slightly negative in the long term. The quarry is well located in the north of Nottinghamshire to be able to meet expected demand from the local area and south Yorkshire, however the annual output from quarry is expected to be very low and is not expected to be worked until late in the plan period reducing its potential contribution to overall demand.</p> <p>In comparison with other sites, this is a new site for mineral working which would have larger impacts when assessed against sustainability appraisal objectives and landscape impact than other sites forming extensions to existing working. It is considered that there are alternative sites which comprise extensions to existing working which have a lower impact and can also serve the North Nottinghamshire and South Yorkshire market.</p> <p>As a result of the above analysis, it is not proposed to allocate this site in the Minerals Plan.</p>
4	Botany Bay	New	North Nottinghamshire	<p>This medium sized site is considered deliverable as it has been promoted by a mineral operator. In overall assessment, there are no transport issues and landscape impacts are relatively moderate to high. When considered against sustainability appraisal objectives, the proposal has a moderately negative score in the operational period and a slightly negative long-term score. The quarry is well located in north Nottinghamshire and would be able to meet expected demand from the local market and South Yorkshire over a large part of the plan period.</p> <p>In comparison with other sites capable of serving north Nottinghamshire and South Yorkshire this site has however relatively higher landscape impacts than other sites of similar size and forms a new greenfield mineral site. There are other sites of similar size able to serve the North of Nottinghamshire, but these form extensions and have consequently lower landscape impact.</p> <p>As a result of the above analysis, it is not proposed to allocate this site in the Minerals Plan.</p>