DERBYSHIRE AND DERBY MINERALS LOCAL PLAN

REVISED
SITE ASSESSMENT METHODOLOGY:
HARD ROCK QUARRIES

DECEMBER 2016

DERBYSHIRE County Council
Improving life for local people

DERBY CITY COUNCIL

Derbyshire County Council and Derby City Council (the mineral planning authorities) are working together to prepare a joint minerals local plan. It will be called the Derbyshire and Derby Joint Minerals Local Plan and cover the geographical area of Derbyshire, excluding the Peak District National Park. It will cover the period to 2030.

Minerals are essential raw materials, which are used to provide the infrastructure, buildings, energy and goods that our country needs. They are vital for economic growth and our quality of life. They are, however, a finite resource and can only be worked where they are found. It is important therefore, that we make the best use of them to enable their long term conservation.

The Plan area has a wealth of mineral resources. Mineral extraction and development has, for a long time, been a part of the Derbyshire landscape and an important part of the local economy, making an important contribution to the national, regional and local need for minerals. Whilst mineral working can also provide environmental benefits, residents and local businesses are often concerned about any unwelcome impacts.

A clear, long-term Minerals Local Plan is a way of setting out the future scale and location of mineral working in the Plan area to support economic growth whilst protecting the environment and local communities. It is important that the Minerals Local Plan gets the balance right between the needs of the economy, the environment and local communities. It is vital, therefore, that communities, businesses, organisations and people throughout Derbyshire and Derby are involved in developing the Minerals Local Plan so that, as far as possible, it contains an agreed set of priorities that will deliver sustainable minerals development that is right for the Plan area.

The Councils carried out extensive consultation during 2015 and 2016, in the form of series of papers, which sought to develop further the emerging vision and objectives, strategies and policies of the Minerals Local Plan. The comments and suggestions made at this stage will be used to feed into the Draft Minerals Local Plan which will be published in 2017. We will ask for your views on this document later in the process.

During the 2015 and 2016 Consultation the Councils sought your views on issues relating to the development of strategies for the provision of hard rock minerals e.g. limestone, sandstone and gritstone, including whether to opt for the identification (allocation) of specific sites to ensure future supply. An allocation of land in a local plan is acceptance, in principle, that a site is suitable for working subject to satisfying detailed planning considerations.

Some information was included about sites that were being promoted by operators for inclusion in the Plan. This Consultation also contained a Site Assessment Methodology that would be used to assess hard rock quarry sites for their suitability to be allocated. If the identification of sites is considered to be the best way of ensuring supply, the Draft Plan will allocate suitable sites to commence working during the Plan period.

To assist further with this further, this Paper sets out revisons to the Site Assessment Methodology in the light of comments made to the previous Consultation Paper. This revised Methodology has been used to carry out an initial assessment of those hard rock sites that have been promoted by operators to determine their suitability for allocation in the Plan. The sites are all extensions to the following quarries: Ashwood Dale, Aldwark/Brassington Moor, Whitwell and Mouselow. Since the 2015 2016 Consultation, a further site has been promoted for working by the operator at Parish Quarry, Darley Dale and this has also been included in the initial assessments. These Assessments have been published as part of this current Consultation. A revised Building Stone Strategy Paper is also included in this current Consultation.

Contents

1 Introduction

1.1 Mineral extraction has, for a long time, been part of the Derbyshire landscape and an established part of the local economy, making an important contribution to both the national and local need for minerals. Whilst mineral working can also provide environmental benefits, residents and local businesses are often concerned about any unwelcome impacts. It is important therefore that in planning for minerals the right balance is achieved between the needs of the economy, the environment and local communities.

2 Purpose of this Paper

2.1 The purpose of this Paper is to set out a revised Site Assessment Methodology that has been amended in the light of comments made to the previous Consultation Paper, dated April 2016, as detailed below.

3 Progress so far - What you have said and how we have responded

3.1 The most recent stage in preparing the Minerals Local Plan is the 'Towards a Minerals Local Plan' Consultation which has taken place during 2015 and 2016, ending in June 2016. This Consultation included a Site Assessment Methodology the purpose of which is to assess sites that are being promoted by operators for hard rock mineral working. The assessment will determine whether the site is appropriate to be identified (allocated) for working over the Plan period. At this stage the Assessment process is intended to discover any positive factors that would support the allocation of the site and any negative factors against its allocation. Further information can be found in the following Paper:

Derbyshire and Derby Minerals Local Plan –
Potential Site Allocations: Assessment Methodology, April 2016

3.2 A key part of the 'Assessment' is the 'Criteria' set out in Table 1 which will be used to assess each site. These criteria cover a wide range of environmental, social and economic considerations and relate to aspects and impacts of mineral development that are

covered in the National Planning Policy and Guidance and other relevant guidance and information.

3.3 On the whole the Site Assessment Methodology received favourable comments however three representations were received from Tarmac concerning the assessment criteria:

- The need to clarify whether the criteria have equal or variable weighting
- The need to take into account mitigation measures as part of the assessment
- The use of particular thresholds i.e. 500 metres to measure particular impacts

3.4 The Councils have taken these comments on board and, where appropriate, made changes to the Assessment Criteria. Further changes have also been made to take on board the impact of working sites on the Peak District National Park.

4 Refining the Site Assessment Methodology

4.1 Table 1 below includes changes to the Assessment Criteria and further explanation of the purpose of the Assessment process.

Site Assessment Methodology: Hard Rock Quarries

Do you have any comments on the revised Site Assessment Methodology for assessing sites promoted for hard rock mineral working?

Please give reasons for your answer.

Table 1: Site Assessment Criteria

The Assessment process is intended to discover any positive factors that would support the allocation of the site and any negative factors against its allocation. These factors are then categorised as having a major or minor impact. In some cases the criteria has been categorised has only having a minor impact on the potential allocation of the site from the outset.

PMAJ - Major positive factor in favour of allocation

PMIN - Minor positive factor in favour of allocation

NMIN - Minor negative factor against favouring an allocation

NMAJ – Major negative factor against favouring an allocation

Criteria	Criteria Ref.	SEA/SA Objective	Emerging Plan Objectives	Considerations	Scale of impact	Indicators
Economic Criteria						
Need for mineral	01	To maximise the potential economic benefits of mineral operations to a sustainable economy in the Plan area and other parts of the Country	The provision for a steady and adequate supply of minerals will be delivered by the identification and maintenance of future supply requirements in line with national planning policy and locally agreed estimates. This will include the figures identified in the Local Aggregate Assessment (LAA) and maintaining adequate landbanks for other minerals and the provision of an adequate number of sites.	NPPF requires that local plans should plan for an adequate and steady supply of minerals. For aggregate minerals the level of provision is determined through the LAA. For some industrial minerals, especially those used in cement production and brick clay the NPPF sets out specific requirements for providing a stock of permitted reserves (land bank) to maintain supply. Is there an identified need for additional reserves to be worked over the Plan period?	PMAJ PMIN NMAJ	Detailed evidence to support the need for additional reserves to be worked over the Plan period Some evidence to support the need for additional reserves to be worked over the Plan period Insufficient evidence to support the need for additional reserves to be worked over the Plan period
Quality/yield of mineral	02	To maximise the potential economic benefits of mineral operations to a sustainable	The provision for a steady and adequate supply of minerals will be delivered by the identification and maintenance of future supply requirements in line with national planning policy and locally agreed estimates. This will include the	NPPF requires local plans to deliver development and therefore the economic viability of development is an important consideration. Is the reserve quality/yield sufficient to suggest extraction would be economically	PMAJ PMIN NMAJ	Detailed geological evidence to support the quality/yield of the deposit (boreholes) Some geological evidence to support the quality/yield of the deposit (mapped) Insufficient evidence to support the quality/yield of the deposit

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		economy in the Plan area and other parts of the Country	figures identified in the Local Aggregate Assessment (LAA) and maintaining adequate landbanks for other minerals and the provision of an adequate number of sites.	viable during the plan period?		
Use of mineral resources	03	To achieve a more efficient use of natural resources and infrastructure, minimise the production of waste and increase reuse, recycling and recovery of waste in Derby and Derbyshire.	Delivering sustainable minerals development will be achieved by the combined implementation of all the policies and proposals of the new Plan. It will include the location of new and extended mineral extraction sites in areas which can help deliver the economic, social and environmental principles of sustainable development and by ensuring the more efficient exploitation and use of primary mineral resources by minimizing waste, increasing levels of secondary and recycled aggregates and the reuse of all other minerals.	NPPF recognises that minerals are a finite resource and therefore it is important to make the best use of them in order to ensure their long-term conservation. Is the end use proposed appropriate for the type of mineral?	PMAJ PMIN NMAJ	Detailed evidence provided to justify that the end use is appropriate for the mineral Some evidence provided to justify that the end use is appropriate for the mineral Insufficient evidence provided to justify that the end use is appropriate for the mineral
Location of Processing Plant	04	To achieve a more efficient use of natural resources and infrastructure, minimise the production of waste and increase reuse, recycling and recovery of waste in Derby and Derbyshire.	This includes developing locational policy which encourages new or extended minerals developments in locations as near as possible to where they will be used and which can be delivered using the most sustainable transport links. The locational policy will be developed with regard to the restrictions imposed by choices being limited to where mineral resources are present and to sites which are genuinely deliverable.	Market areas vary greatly for minerals depending on their type from international, national or more local. Where relevant an assessment will be made on the appropriateness of the location of the site to intended market. Is the site appropriately located in relation to the market it is intended to serve?	PMIN NMIN	The site is well located to serve its intended market The site is not well located to serve its intended market

Criteria	Criteria Ref.	SEA/SA Objective	Emerging Plan Objectives	Considerations	Scale of impact	Indicators
Existing Infrastructure	05	To achieve a more efficient use of natural resources and infrastructure, minimise the production of waste and increase reuse, recycling and recovery of waste in Derby and Derbyshire.	This includes developing locational policy which encourages new or extended minerals developments in locations as near as possible to where they will be used and which can be delivered using the most sustainable transport links. The locational policy will be developed with regard to the restrictions imposed by choices being limited to where mineral resources are present and to sites which are genuinely deliverable.	Mineral processing plant/infrastructure can be expensive to develop and therefore NPPG states that economic considerations such as the utilisation of existing plant and infrastructure should be taken into account. Is there existing infrastructure that would be utilised by the proposed operation to process the mineral?	PMIN NMIN	Yes existing infrastructure exists on or adjacent to the site No new infrastructure would be required to process the mineral
Sterilisation of Resources	06	To maximise the potential economic benefits of mineral operations to a sustainable economy in the Plan area and other parts of the Country	Mineral resources and the facilities which are used to process and transport extracted minerals will be protected from inappropriate development that would impair their availability and use for future generations. This will include the identification and safeguarding of surface and underground mineral resources of local and national importance, important aggregates supply and transport infrastructure such as rail heads, coating and concrete plants and effective co-operation with the district and borough councils in the area.	NPPF recognises that minerals are a finite resource and therefore it is important to make the best use of them, including avoiding their sterilisation, in order to ensure their long-term conservation. In some cases it might be that if a site isn't allocated to be worked as part of a current operation its' scale or location would affect the likelihood of it being worked in the future effectively sterilising the resource. If the site wasn't allocated is it likely that the mineral resources be sterilised from future working due to its location/scale?	PMIN NMIN	Yes The site is likely to be sterilised if not allocated No The site is unlikely to be sterilised if not allocated due to its scale/location
Employment	07	To maximise the potential economic benefits of mineral operations to a sustainable economy in the Plan area and other parts of the Country	Delivering sustainable minerals development will be achieved by the combined implementation of all the policies and proposals of the new Plan. It will include the location of new and extended mineral extraction sites in areas which can help deliver the economic, social and environmental principles of sustainable development and by ensuring the more efficient exploitation and use of primary mineral	The minerals industry can provide an important source of local employment. NPPG states that economic considerations such as the retention of jobs should be taken into account. Is it likely that the proposal would lead to the retention of jobs at a currently operational site to the benefit of the local community? Would it be the continuation of an existing operation or a new operation?	PMAJ PMIN NMIN	A new operation which would result in new jobs Working of the site would enable a continuation of the operation leading to the retention of existing jobs at an existing quarry or a new operation but would not result in job losses elsewhere A new operation which may result in job losses elsewhere

Criteria	Criteria Ref.	SEA/SA Objective	Emerging Plan Objectives	Considerations	Scale of impact	Indicators
			resources by minimising waste, increasing levels of secondary and recycled aggregates and the reuse of all other minerals.			
Social Criteria						
Duration of mineral extraction	08	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.	NPPF requires the cumulative impact of proposals to be taken into account; the duration of the operation should be a consideration. The duration of mineral extraction will affect the overall scale of impact on local communities. What is the intended timeframe for working the site (i.e. short-term 0-10 years etc.?)	PMAJ PMIN NMIN NMAJ	Short-term 0-10 years Medium-term 10-20 years Long-term 20-30 years Very long-term 30+ years
Visual Intrusion	09	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.	NPPG advises that visual intrusion is a consideration that needs to be taken into account. Visual intrusion covers impact of the workings in relation to nearby communities and impact on landscape during and after working. This section covers impact on communities. Impact on landscape character will be dealt with separately. Assessment makes a judgement of visual impact on 'sensitive receptors'. In terms of visual impact these have been classed as occupied residential properties and places where people go e.g. schools/hospitals/community centres/leisure facilities. Public Rights of Way have also been included in this assessment. The assessment takes into account as far as possible; proximity to sensitive receptors topography of site, existing screening	PMAJ PMIN NMIN NMAJ	The site has few or no visually sensitive receptors and/or only small parts of the site will be visible from them. The site has few visually sensitive receptors but large parts (or more than one part) of the site will be visible from them. The site has some visually sensitive receptors and/or some parts of the site will be visible from them. The site has many visually sensitive receptors and/or large parts (or more than one part) of the site will be visible from them.

Criteria	Criteria Ref.	SEA/SA Objective	Emerging Plan Objectives	Considerations	Scale of impact	Indicators
				measures		
Noise	10	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.	NPPG advises that noise is a consideration that needs to be taken into account and that the impact of noise needs to be evaluated, controlled or mitigated. The detailed impact of noise can only be undertaken at the planning application stage however in considering noise impacts MPAs are required to take in to account the location of 'noise sensitive' properties. Therefore as an indication of where noise might be an issue it is considered reasonable to measure the proximity of the site to the incidence of 'noise sensitive areas and properties' which would be adversely affected by an increase in noise levels. These would normally include dwellings/places of worship/educational establishments/ hospitals/ livestock farms/ some factories or any other property likely to be adversely affected by an increase in noise levels. The assessment takes into account the number of sensitive receptors within 200 and 500m of site.	PMAJ PMIN NMIN NMAJ	The site has no noise sensitive receptors within 500m of the boundary of the site The site has no or few noise sensitive receptors within 200m of the boundary of the site and some within 500m The site has no or few noise sensitive receptors within 200m of the boundary of the site and many within 500m The site has many noise sensitive receptors within 200m of the boundary of the site
Nuisance Dust	11	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.	NPPG advises that dust is a consideration that needs to be taken into account. This criteria deals with nuisance dust only. Dust likely to cause harm to human health is dealt with under air quality. The location of residential areas, schools and other dust-sensitive land uses should be identified in relation to the site, as well as proposed or likely sources of dust emission from within the site. The assessment should explain how topography may affect the emission and dispersal of site dust, particularly the influence of areas of woodland, downwind or adjacent to the site boundary, and of valley or hill formations in altering local wind patterns. Large dust particles (>30um), which make up the greatest source of dust emitted from	PMAJ PMIN NMIN NMAJ	The site has no high/medium dust sensitive receptors within 500m of the boundary of the site The site has no or few high/medium dust sensitive receptors within 200m of the boundary of the site and some within 500m The site has no or few high/medium dust sensitive receptors within 200m of the boundary of the site and many within 500m The site has many high/medium dust sensitive receptors within 200m of the boundary of the site

Criteria	Criteria Ref.	SEA/SA Objective	Emerging Plan Objectives	Considerations	Scale of impact	Indicators
				mineral workings will largely deposit within 100m of sources. Intermediate sized particles (10-30um) are likely to travel up to 200-500 m. Large/intermediate particles are classed as nuisance dust. Assessment takes into account the number of high/medium dust sensitive properties within 200 and 500 metres of sites i.e. area where large/intermediate dust particles are likely to deposit.		
Air Quality/ Human Health	12	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.	Smaller particles (< 10um) which make up a small proportion of dust emitted from most mineral workings can travel up to 1000m or more. These small particles (PM10s) are associated with effects on human health. NPPG states that measures to control fine particulates (PM_{10}) to address any impacts of dust might be necessary if, within a site, the actual source of emission (e.g. the haul roads, crushers, stockpiles etc.) is in close proximity to any residential property or other sensitive use. Unacceptable levels of PM10s are one factor that may result in the establishment of an Air Quality Management Area to address the problem. The presence of such an area has been regarded as an indicator that air quality is poor therefore might constrain the location of additional dust generating development. Given that PM10s can travel up to and over 1000m, this has been used as a cut-off point.	PMIN NMIN NMAJ	Site does not lie within 1000 m of an AQMA Site lies within 1000m of an AQMA Site lies within an AQMA
Blasting/Vibration	13	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where	NPPG advises that blast vibration is a consideration that needs to be taken into account. Blasting is often a major cause of concern to residents close to mineral workings. Disturbance is dependent on the quantity of explosive used, the distance to the receptor, the geology of the site and atmospheric conditions. The impact of blasting is a matter not normally addressed in detail at the 'site allocation' stage but as a practical 'rule of thumb' a 200	PMIN NMIN	Distance to nearest sensitive receptor is over 200 metres Distance to the nearest sensitive receptor is within 200 metres.

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			people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.	metre buffer zone is considered more than adequate to protect sensitive receptors from the impacts of blasting.		
Transport – Local Amenity	14	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.	NPPG advises that traffic is a consideration that should be taken into account. The movements of minerals and importation of fill material for restoration can generate large volumes of traffic, mainly heavy goods vehicle (HGVs). Such traffic can impact on communities causing problems such as public safety, noise and vibration, air pollution and visual intrusion. These problems are most severe where HGVs use roads unsuited to their weight and size, where they pass through sensitive areas and at the access to the site from the public highway. Will associated mineral traffic pass through sensitive areas on the way to the strategic road network?	PMAJ PMIN NMIN NMAJ	HGVs would have to pass no sensitive receptors between the site and the start of the local strategic network (A Class Road or designated freight routes) HGVs would have to pass few sensitive receptors between the site and the start of the local strategic network (A Class Road or designated freight routes) HGVs would have to pass some sensitive receptors between the site and the start of the local strategic network (A Class Road or designated freight routes) HGVs would have to pass many sensitive receptors between the site and the start of the local strategic network (A Class Road or designated freight routes)
Transport - Safe and effective access to and from the site	15	To minimise traffic levels, journey lengths the number of road traffic related accidents, and to encourage sustainable forms of transport in Derby and Derbyshire.	The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.	What are the existing or proposed access arrangements for the site?	PMAJ NMIN NMAJ	Existing approved access to current highway standards Existing approved access not to current highway standard but no pattern of existing collisions or congestion at access location or no existing access , but subject to agreement with local highway authority new access likely to be accepted Existing approved access not to current highway standard and current pattern of existing collisions or congestion at access location or no existing access and subject to agreement with local highway authority new access unlikely to be acceptable.
Transport – Export route (vehicular)	16	To minimise traffic levels, journey lengths the number of	To protect local communities from any unacceptable impacts that may arise from minerals development. The Plan will minimise the potential	What is the main export route (vehicular) from the site?	PMAJ PMIN	Direct onto the strategic road network (I.e. and A class road or a road that is a designated freight route. Direct onto a B class road with short haul to strategic road network

Criteria	Criteria Ref.	SEA/SA Objective	Emerging Plan Objectives	Considerations	Scale of impact	Indicators
		road traffic related accidents, and to encourage sustainable forms of transport in Derby and Derbyshire.	adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.		NMIN NMAJ	Direct onto a B class road but with long haul to strategic road network Direct on to minor roads unsuitable for HGVs
Transport - Capacity for sustainable transport options	17	To minimise traffic levels, journey lengths the number of road traffic related accidents, and to encourage sustainable forms of transport in Derby and Derbyshire.	The Plan will seek to minimise and mitigate the risk of flooding and the impacts of climate change arising from minerals developments. This will include the development of locational policy to avoid inappropriate locations and encouraging well designed and operated developments that make provision for the management of water, minimise the use of machinery emissions and road transport, the location and use of processing plant and by securing appropriate forms of restoration which address how sites interact with their surroundings in the longer term.	NPPF promotes the use of alternatives to road transport provided that they are environmentally preferable. This helps to reduce carbon emissions thus reducing the impacts on the climate. Is an alternative mode of transport to road proposed?	PMAJ PMIN NMIN	All material would be transported by rail or canal Some material would be transported by rail or canal All material would be transported by road
Benefits from the working, restoration and proposed after-use	18	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	To protect local communities from any unacceptable impacts that may arise from minerals development. The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include	NPPF advises that the positive benefits of mineral working should be taken into account. What are the overall potential benefits from the proposed working, restoration and after-use of the site?	PMAJ PMIN NMIN NMAJ	Economic, social and environmental benefits would arise Two of the above benefits would arise One of the above benefits would arise No benefits would arise

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			developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.			
Cumulative impact	19	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	To protect local communities from any unacceptable impacts that may arise from minerals development. The Plan will minimise the potential adverse impacts of minerals development on local communities in the area by protecting their existing amenity, quality of life, social fabric and health. Particular emphasis will be given to the need to prevent further cumulative impacts. This will include developing locational policy to ensure the appropriate separation between minerals sites and the places where people live and work, policies which promote the highest standards of design and operation and setting out criteria to ensure that only acceptable development proposals are allowed.	Cumulative impact arises not only from successive mineral operations in the same area, but also coupled with other types of commercial activity, which may have an impact on an area over time.	PMIN NMIN NMAJ	There are no significant impacts of past or present mineral extraction or other significant commercial activity in the area. There are not any current mineral workings in the area but there have been workings in the recent past and there is other commercial activity in the area. There is a concentration of mineral workings and other commercial activity in the areas, which currently have, or have had, impacts either concurrently or successively over a long period of time.
Environmental Criteria						
Water Environment – Flood Risk	20	Limit vulnerability to flooding taking account of climate change	The Plan will seek to minimise and mitigate the risk of flooding and the impacts of climate change arising from minerals developments. This will include the development of locational policy to avoid inappropriate locations and encouraging well designed and operated developments that make provision for the management of water, minimise the use of machinery emissions and road transport, the location and use of processing plant and	The EA designates flood zones which are susceptible to different risks of flooding. Zone 1 has the lowest probability of flooding and Zone 3 the highest. NPPG advises that a risk-based sequential test should be applied to proposals with the aim of steering new development to areas at the lowest probability of flooding. It classifies land uses according to their vulnerability to flooding; mineral workings (other than sand and gravel workings) are classed as 'less vulnerable' development which is appropriate	PMAJ PMIN NMIN NMAJ	Site lies within flood zone 1- lowest probability of flooding Site lies within flood zone 2- medium probability of flooding Site lies within flood zone 3a- high probability of flooding Site lies within flood zone 3b- functional flood plain

Criteria	Criteria Ref.	SEA/SA Objective	Emerging Plan Objectives	Considerations	Scale of impact	Indicators
			by securing appropriate forms of restoration which address how sites interact with their surroundings in the longer-term.	development in zones 1, 2 and 3a. However, mineral working should not increase flood risk elsewhere and needs to be designed, worked and restored accordingly. It sets out that it may be possible to locate ancillary facilities such as processing plant and offices in areas at lowest flood risk. Sequential working and restoration can be designed to reduce flood risk by providing flood storage and attenuation.		
Water Environment –groundwater	21	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	The Plan will seek to minimise and mitigate the risk of flooding and the impacts of climate change arising from minerals developments. This will include the development of locational policy to avoid inappropriate locations and encouraging well designed and operated developments that make provision for the management of water, minimise the use of machinery emissions and road transport, the location and use of processing plant and by securing appropriate forms of restoration which address how sites interact with their surroundings in the longer-term.	NPPG advises that groundwater is a consideration that should be taken into account. The EA designates Groundwater Source Protection Zones for important groundwater sources such as wells, boreholes and springs used for drinking water supply. It is important within these Zones not to interrupt the flow or to pollute the groundwater.	PMIN NMIN	Site lies outside a groundwater protection zone Site lies within a groundwater protection zone
Water Environment - aquifer protection	22	To protect, maintain and improve the health and well-being of Derby and Derbyshire's people and communities.	The Plan will seek to minimise and mitigate the risk of flooding and the impacts of climate change arising from minerals developments. This will include the development of locational policy to avoid inappropriate locations and encouraging well designed and operated developments that make provision for the management of water, minimise the use of machinery emissions and road transport, the location and use of processing plant and by securing appropriate forms of restoration which address how sites interact with their surroundings in the longer-term.	NPPG advises that groundwater is a consideration that should be taken into account. Permeable rock deposits that store groundwater are known as aquifers. The EA designates two types of aquifer, superficial drift and bedrock deposits. Aquifers are further classified as Principal or Secondary. Principal aquifers usually provide a high level of water storage and may support water supply and/or river base flow on a strategic scale. Consequently they require the greatest protection from development that might be harmful to them.	PMIN NMIN NMAJ	Site lies on a Non Aquifer Site lies on a Secondary Aquifer Site lies on a Principal Aquifer

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Ecology – existing impacts from mineral extraction	23	To protect, maintain and enhance biodiversity and geodiversity in Derby and Derbyshire, ensuring no net loss of important sites, habitats or species.	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on internationally, nationally or locally designated wildlife sites, protected habitats and species and ecological networks should be taken into account. Presence or absence of existing impacts from mineral extraction	PMAJ PMIN NMIN NMAJ	Over a wide area habitats have been fragmented by mineral extraction or habitats of limited quality have been created through mineral extraction but have potential to make a major contribution to biodiversity targets Localised but moderate to high impacts Only localised, limited impacts associated with mineral extraction on habitats within or adjacent to the site None or insignificant impacts from mineral extraction on habitats within or adjacent to the site
Ecology – UK, regional and local BAP priority species and habitats	24	To protect, maintain and enhance biodiversity and geodiversity in Derby and Derbyshire, ensuring no net loss of important sites, habitats or species.	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on internationally, nationally or locally designated wildlife sites, protected habitats and species and ecological networks should be taken into account. Presence or absence of existing priority habitats and species as identified by UK, regional and local BAPs	PMAJ PMIN NMIN NMAJ	Extensive areas of degraded or biodiversity poor habitats that provide a context for possible allocation with an emphasis on habitat creation contributing to UK priority habitats Some areas of degraded or biodiversity poor habitats that provide a context for possible allocation with an emphasis on habitat restoration or creation contributing to UK and local priority habitats Some areas of positive ecological value including UK or local priority habitats or species which should be considered for protection/conservation Extensive areas of positive ecological value including UK priority habitats or species which should be considered for protection/conservation
Ecology – ecological coherence: Natural Areas/ Wildlife Corridors/linkages	25	To protect, maintain and enhance biodiversity and geodiversity in Derby and Derbyshire, ensuring no net loss of important sites, habitats or species.	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on internationally, nationally or locally designated wildlife sites, protected habitats and species and ecological networks should be taken into account. Does the site have strong ecological coherence?	PMAJ PMIN NMIN NMAJ	The proposed site no longer accords with the established habitats over a wider area. The proposed site has few characteristics that accord with the established habitats over a wider area and its internal ecological coherence is poor OR coherence of the wider area is poor The proposed site generally accords with the established habitats over a wider area (or in part) but the condition of habitats is poor OR few features within the site but encompassed by landscapes which have ecological coherence The proposed site accords with the established habitats over a wider area and habitat pattern is strong
Ecology – Habitat Creation	26	To protect, maintain and enhance biodiversity and	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important	NPPG advises that the proposed restoration of the site should be taken into account. Does the site provide opportunities for habitat creation?	PMAJ PMIN	The proposed site offers excellent opportunities to create or enhance UK priority habitats within the site and offers biodiversity benefit over a wider area e.g. by enhancing a habitat corridor. The site offers some opportunities to create or enhance UK or

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		geodiversity in Derby and Derbyshire, ensuring no net loss of important sites, habitats or species.	features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.		NMIN NMAJ	local priority habitats within its boundaries, making overall habitat gain, but may not make appropriate linkages to wider area. Existing habitats are intact and habitat creation would only provide limited biodiversity enhancement within the site or the wider area. Existing habitats are intact and make a strong contribution to priority biodiversity targets for conservation and there is strong ecological coherence within the site; habitat creation would not enhance the site or the wider area.
Landscape- existing impacts from mineral extraction	27	To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character, and cultural heritage	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on landscape character should be taken into account. A particular issue for hard rock quarries is the scope of the landscape character to accommodate mitigation and thereby reduce potential impacts. What is the character of the existing landscape including its scope to accommodate mitigation?	PMAJ PMIN NMIN NMAJ	A landscape of complex character with many landscape characteristics that can be employed in the satisfactory mitigation/restoration of the site A landscape of varied character with some landscape characteristics that can be employed in the satisfactory mitigation/restoration of the site A simple landscape with few landscape characteristics that can be employed in the satisfactory mitigation/restoration of the site An open and simple landscape with very few landscape characteristics that can be employed in the satisfactory mitigation/restoration of the site
Landscape – Existing infrastructure	28	To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character, and cultural heritage	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on landscape character should be taken into account. Is there existing infrastructure that the site could be worked through and what is the impact in landscape terms from connecting to this?	PMAJ PMIN NMIN NMAJ	There is existing infrastructure within the vicinity of the proposed site that can be readily and easily used There is existing infrastructure within the vicinity of the proposed site that could be connected to with slight adverse effects There is existing infrastructure within the vicinity of the proposed site but there would be significant adverse impacts associated with connecting to it. There is no existing infrastructure and this will need to be developed for the proposed site to be operated

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Landscape – Strength of Landscape Character	29	To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character, and cultural heritage	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on landscape character should be taken into account. Is the character of the landscape strong and visually coherent?	PMAJ PMIN NMIN NMAJ	The proposed site no longer accords with the established landscape character and the restoration of a 'new' landscape is required (Restore/create) The proposed site has few characteristics that accord with the established landscape character and the condition is poor (Enhance) The proposed site generally accords with the established landscape character (or in part) but the condition could be enhanced (Conserve and enhance) The proposed site accords with the established landscape character and is in good condition (Conserve)
Landscape/– visual impact	30	To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character, and cultural heritage	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on landscape character should be taken into account. What would be the visual impact on the landscape of working the site?	PMAJ PMIN NMIN NMAJ	The site has few or no visual receptors and/or only small parts of the site will be visible The site has few visual receptors but large parts (or more than one part) of the site will be visible The site has some visual receptors and/or some parts of the site will be visible The site has many visual receptors and/or large parts (or more than one part) of the site will be visible
Landscape – impact on the Peak District National Park	31	To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character, and cultural heritage	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPF requires great weight to be given to conserving landscape and scenic beauty in National Parks. Many of the hard rock quarries within the Plan area lie in close proximity to the Peak District National Park (PDNP). Would working the site impact on the PDNP?	PMAJ PMIN NMIN NMAJ	The site is not close to the PDNP boundary and no part of the site will be visible from it The site is not close to the PDNP boundary although parts of the site may be visible from it The site lies in close proximity to the PDNP boundary forming part of the wider setting and/or large parts of the site will be visible from it The site abuts the PDNP boundary forming part of its immediate setting and/or large parts of the site will be clearly visible from it

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Historic Environment – designated sites and settings	32	To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character, and cultural heritage	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on archaeology and heritage features should be taken into account. Would working the site impact on a designated site or its setting? .	PMIN NMIN NMAJ	No perceivable impact on a designation and/or its setting Impact on a Grade II designation, conservation area and/or its setting Impact on a Grade I or II* designation , SAM and/or its setting
Historic Environment – Archaeology	33	To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character, and cultural heritage	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on archaeology and heritage features should be taken into account. What is the archaeological importance of the site?	PMAJ PMIN NMIN NMAJ	Little or known earthworks and/or known archaeology with low potential for buried archaeology Occasional or localised earthworks (may not be visually evident) and/or known archaeology with limited potential for buried remains Frequent, visible and interpretable earthworks and/or some known archaeology with significant potential for buried remains Extensive, visible and interpretable earthworks and/or known archaeology with high potential for buried remains.
Historic Environment – historic landscape	34	To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character, and cultural heritage	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that impacts on archaeology and heritage features should be taken into account. Is the historic character of the landscape strong?	PMAJ PMIN NMIN NMAJ	Historic field pattern largely gone Remnant field patterns with significant boundary loss Recognisable field patterns with some boundary loss Evidence of multi-period landscape and/or intact field pattern (as indicated by 1st edition OS or earlier)

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Geological and Geomorphological features	35	To protect, maintain and enhance biodiversity and geodiversity in Derby and Derbyshire, ensuring no net loss of important sites, habitats or species.	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that the impacts on nationally protected geological and geomorphological sites and features need to be taken into account. What is the geological /geomorphological importance of the site?	PMIN NMIN	No impact on a designated site Impact on a designated site
Best and most versatile agricultural land	36	To protect, conserve and enhance air, water and soil quality, minimise light and noise pollution and land instability.	The Plan will conserve and enhance the areas' natural and built environment, including its distinctive landscapes, habitats, wildlife and other important features by avoiding, minimising and mitigating potential adverse impacts of minerals developments.	NPPG advises that the impacts on soil resources should be taken into account. What is the likelihood of the site containing best and most versatile (BMV) agricultural land? At this stage we do not have detailed working and restoration proposals to assess how much BMV land will be conserved, neither do we have detailed information about the presence of BMV land. We have decided to use DEFRA's predictive agricultural land classification map to indicate whether the site lies within an area where there is a high, moderate or low likelihood of BMV land being present. In principle areas of BMV land should be protected.	PMAJ PMIN NMIN	The site lies within an area where there is a low likelihood of bmv land (less than 20% of the land is likely to be bmv). The site lies within an area where there is a moderate likelihood of bmv land (20-60% of the land is likely to be bmv). The site lies within an area where there is a high likelihood of bmv land (more than 60% is likely to be bmv).

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Duty to Co-operate						
Conformity with other local plans (allocations)	37			NPPF requires local planning authorities to co-operate on strategic cross border issues which includes ensuring that local plans are compatible Is the site in conformity with other local plans?	PMAJ NMIN NMAJ	The site is in conformity with other local plans The site is not in conformity but the issue is likely to be resolvable The site is not in conformity with other local plans and the issue is unlikely to be resolved