

DERBYSHIRE AND DERBY MINERALS LOCAL PLAN

**Towards a Minerals Local Plan:
Spring 2018 Consultation**

**Site Allocations:
Revised Initial Site Assessment
Aldwark/Brassington Moor**

December 2017

Contents

- 1 Introduction and Background
- 2 Aldwark/Brassington Moor Quarry
- 3 Sources of Information for Assessment
- 4 Site Assessment
- 5 Conclusions
- 6 Outcomes for the Proposed Approach

1. Introduction and Background

- 1.1 The allocation of specific sites for mineral working forms part of the suggested way of planning for an adequate and steady supply of industrial limestone, as set out in Chapter 7 of this Consultation. The implementation of this approach requires the Plan to allocate suitable sites that will commence working during the Plan period to 2030.
- 1.2 In order to assess the suitability of sites the MPAs have developed a Site Assessment Methodology which has been refined following previous consultations. Further information can be found in the following Background Paper.

**Towards a Minerals Local Plan: Winter 2017/2018
Consultation**

**Revised Site Assessment Methodology Hard Rock
Quarries, December 2017**

- 1.3 The Revised Site Methodology has been used to carry out a Revised Initial Assessment on the 'hard rock' sites that have been promoted for working during the Plan period. This Paper contains a Revised Initial Assessment of the promoted extension site at Aldwark/Brassington Moor Quarry.

2. Aldwark/Brassington Moor Quarry

- 2.1 Aldwark/Brassington Moor Quarry lies within the Carboniferous Limestone Resource centred on the Matlock/Wirksworth area. The quarry is currently operated by Longcliffe Quarries Ltd. It produces dried, milled and classified calcium carbonate powders and granules. These are crucial raw materials for the production of animal feed, glass,

sealants and adhesives, mastics, plastics and rubber. It also produces bright (white) dusts for precast concrete products and significant volumes of agricultural lime. By-products from these mainstream products are also sold for construction uses. Recent production rates have averaged just below 1mt split equally between industrial and aggregate uses.

- 2.2 Some of the products produced require exacting specifications of mineral which impacts on the suitability of reserves at the quarry. Of particular importance for animal feed products are reserves that are low in cadmium, iron and lead which occur at different locations and depths throughout the quarry. The Company estimates that these reserves will be exhausted between 2025 and 2031. It is proposing an extension to the quarry that would yield approximately 38 mt of reserve generating between 6.8 and 12.2 mt of low cadmium reserves.

3 Sources of Information for Assessment

- 3.1 The following documents provide the main sources of information used to assess the site:

- Derbyshire and Derby MLP Questionnaire for promoted sites
- Letter containing supporting information dated 20 October 2016
- Planning Application CM3/1205/156 Extension to Brassington Moor Quarry granted 10 December 2007

More detail about the sources of information used to inform the assessment can be found in the following Background Paper:

**Towards a Minerals Local Plan: Winter 2017/2018
Consultation**

**Revised Initial Site Assessment Background Information:
Aldwark/Brassington Moor, December 2017**

3.2 The following information has been mapped:

Site location, resource, noise and dust indicator zones, public rights of way and transport features, water designations, nature and heritage assets, landscape character, predictive agricultural land

This site assessment should be read alongside the mapped information which can be found in the following Paper:

**Towards a Minerals Local Plan: Winter 2017/2018
Consultation**

**Revised Initial Site Assessment Maps:
Aldwark/Brassington Moor, December 2017**

4. Site Assessment

Revised Initial Assessment of Sites

- 4.1 The Assessment involves an assessment of each promoted site against the economic, social and environmental criteria set out in Table 1. The purpose of this Assessment is to discover any positive factors that would support the allocation of the site and any negative factors that would constrain its allocation. These factors are then categorised as having a major or minor impact. In some cases the criteria have been categorised as only having a minor impact on the potential allocation of the site from the outset; no other weightings will be applied to the criteria. The assessment criteria will be applied on an individual basis and therefore what is considered a major impact for one criterion should not be compared to a major impact for another criterion.
- 4.2 The Assessment is not intended to be a stop/go process hence even where negative factors have been identified further detailed assessment will take place to ascertain if those factors can be mitigated or avoided to enable a site to progress towards allocation.
- 4.3 The Assessment has been undertaken by appropriately qualified personnel specifically identified to conduct assessments based on their respective professional fields. Much of the Assessment is desk based using existing data and information. A field visit has also been undertaken to view the site in the context of its surroundings.
- 4.4 The main generic background sources of information are:
- Relevant environmental, infrastructure and land use GIS datasets,
 - Mineral resource information reports, maps and survey data,

- Current and historic planning permissions and planning applications,
- Landscape Character Study assessments, Biodiversity Action Plans, Historic Environment Record (Sites and Monuments record)
- Local Transport Plan
- District and City Council prepared Local Plans

Scale of Impact

4.5 The scale of impact is recorded as follows:

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

None/Few/Some/Many

4.6 For some indicators the Assessment provides an indication of the number of properties affected by a criterion by using the general terms none, few, some and many. These general terms have been assigned numbers to provide an indication of the number of properties involved.

None – 0, Few – 1-5, Some – 6-19, Many 20+

Sensitive Receptors

- 4.7 For some indicators the Assessment refers to impacts on sensitive receptors; examples of such receptors are set out below:

Visual sensitive receptors: Residences, Retirement Homes, Hospitals, Community Facilities, Hotels, Footpath/Trail users etc

Noise Sensitive receptors: Residences, Retirement Homes, Hospitals, Schools, Places of Worship, Offices, Farms, Hotels etc

Dust Sensitive receptors: Residences, Retirement Homes, Hospitals, Schools, Farms, Hotels, Some industries such as food processing, hi- tech etc

Additional Note

- 4.8 The Criteria Numbers in Table 1 have changed from previous consultation versions of Table 1 as criteria have been added or deleted.

Table 1: Revised Initial Assessment

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
Economic Criteria					
Need for mineral	01	<p>NPPF requires that local plans should plan for an adequate and steady supply of industrial minerals. Additionally 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).</p> <p>Is there an identified need for additional reserves to maintain supply throughout the Plan period?</p>	<p>PMAJ</p> <p>PMIN</p> <p>NMAJ</p>	<p>Detailed evidence to support the need for additional reserves to be worked at that quarry over the Plan period</p> <p>Some evidence to support the need for additional reserves to be worked at that quarry over the Plan period</p> <p>Insufficient evidence to support the need for additional reserves to be worked at that quarry over the Plan period</p>	<p>PMAJ (see Map 1)</p> <p>The Company has submitted detailed evidence to justify the need for additional industrial limestone reserves of Low Cadmium Limestone at Aldwark/Brassington Moor quarry. Current reserves of this quality will last until 2025 at the worst case scenario and 2031 at the best. The new mineral reserves will not be required until the latter part of the Plan period.</p> <p>In terms of aggregates the most recent LAA, 2017, concludes that there are more than sufficient reserves to last throughout the Plan period. The principal need for this quarry therefore is to supply industrial limestone.</p>
Quality/yield of mineral	02	<p>NPPF requires that local plans should plan for an adequate and steady supply of industrial minerals. In order to assess whether a site will meet an identified need it is important to determine the scale and nature of the promoted mineral resource. Has the operator provided sufficient information about the quality/yield of the resource?</p>	<p>PMAJ</p> <p>PMIN</p> <p>NMAJ</p>	<p>Detailed geological evidence to support the quality/yield of the deposit (boreholes)</p> <p>Some geological evidence to support the quality/yield of the deposit (mapped)</p> <p>Insufficient evidence to support the quality/yield of the deposit</p>	<p>PMIN</p> <p>The Company has submitted detailed borehole/mapped evidence from the existing quarry which can be used to extrapolate the geochemistry of the promoted site. Detailed borehole information is not yet available.</p>

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
Use of mineral resources	03	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	PMAJ The Company has submitted evidence to support the proposed end use of the mineral. Mineral from the promoted site will be used for highly specified high purity low heavy metal products for markets such as animal feeds, glass, sealants and adhesives, plastics and rubber as well as agricultural lime and bright (white) products for specialised pre-cast concrete products.
Location of site to market areas	04	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 for its intended market. Is the site appropriately located in relation to the market areas 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	PMIN Markets for industrial limestone are national. The Carboniferous Limestone resource around Matlock/Wirksworth in Derbyshire is a well-established industrial limestone producing area of the Country. Aggregates will be used locally.
Existing Infrastructure	05	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 in considering the suitability of new sites and extensions to existing sites. 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	PMIN The mineral will be processed on site using existing plant and infrastructure
Conservation of Resources	06	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. In some cases it might be that if a site isn't allocated to be worked as part of a current	PMIN NMIN	Yes The site is likely to remain unworked if not allocated No The site is likely to be worked if not allocated due to its scale/location	PMIN Limestone quarries are expensive to develop and therefore if this site isn't worked as an extension to the existing quarry it is unlikely to be worked in the future.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
		operation its' scale or location would affect the likelihood of it being worked in the future. If the site wasn't allocated is it likely that the site would remain unworked due to its location/scale?			
Employment	07	<p>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 in considering the suitability of new sites and extensions to existing sites.</p> <p>Would the proposal create new jobs? Would the proposal lead to the retention of jobs at a currently operational site? Would the proposal create new jobs but lead to job losses elsewhere?</p>	PMAJ PMIN	A new operation which would result in the creation of new jobs The continuation of an operation leading to the retention of existing jobs or a new operation which would result in the creation of new jobs but which would result in job losses elsewhere.	PMIN Working of the site would enable a continuation of the operation leading to the retention of 175 full time jobs at the existing quarry and 30-40 semi-permanent contractors.
Social Criteria					
Duration of mineral extraction	08	NPPF requires the cumulative impact of proposals to be taken into account. The duration of the operation should be a consideration as it will affect the overall scale of impact on local communities. What is the intended timeframe for working the site in addition to any existing permitted reserves?	PMAJ PMIN NMIN NMAJ	<p>Short term 0-10 years</p> <p>Medium term 10-20 years</p> <p>Long term 20-30 years</p> <p>Very long term 30+ years</p>	NMAJ Working the site is a very long term proposal well in excess of 30 years. The extension to the quarry would yield approximately 38 mt of reserve generating between 6.8 and 12.2 mt of low cadmium reserves.
Visual Intrusion	09	<p>NPPF requires that mineral operations do not have unacceptable adverse visual impacts. Visual intrusion covers impact of the workings in relation to visually sensitive receptors e.g. nearby communities, PROW users</p> <p>The Assessment makes a judgement on the visual impact of working on 'sensitive receptors'. The assessment takes into account as far as possible; proximity to sensitive receptors, topography of site and existing screening measures.</p>	PMAJ PMIN NMIN NMAJ	<p>The site has few or no visually sensitive receptors and/or only small parts of the site will be visible from them.</p> <p>The site has few visually sensitive receptors but large parts (or more than one part) of the site will be visible from them.</p> <p>The site has some visually sensitive receptors and/or some parts of the site will be visible from them.</p> <p>The site has many visually sensitive receptors and/or large parts (or more than one part) of the site will be visible from them.</p>	NMIN NMAJ (see Map 2) The site has some visually sensitive receptors and/or some parts of the site will be visible from them. Whilst there are no sensitive receptors close to the proposed extension area, it will be visible from a number of locations around the site that will allow for views of parts of the area. These include some properties in Aldwark and Ible, local footpaths, recreational trails including the High Peak Trail and the Limestone Way, and the local road network. These impacts will also be in the context of the existing quarry and the adjoining Grangemill quarry which already

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
					exert significant adverse visual effects on surrounding visual receptors.
Noise	10	NPPF requires that mineral operations do not have unacceptable adverse noise impacts. At the planning application stage it is likely that a Noise Assessment study will need to be undertaken. At this stage however it is possible to indicate where noise might be an issue by assessing the number of noise sensitive receptors and their distance from the site. In the absence of detailed information about the sources of noise the site boundary has been used from which to measure potential impacts. The assessment takes into account the number of 'noise 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	PMIN (see Map 3) The site has no or few noise sensitive receptors within 200m of the boundary of the site and some within 500m. Residential and industrial uses are located at Manor Farm which lies some 350 metres away to the south of the site. The villages of Aldwark and Longcliffe lie just beyond 500 metres away to the north and south west respectively.
Dust	11	NPPF requires that mineral operations do not have unacceptable adverse dust impacts. NPPG sets out further guidance on this matter. At the planning application stage it is likely that a Dust Assessment Study will need to be undertaken. At this stage, however, it is possible to indicate where dust might be an issue by assessing the number of dust sensitive receptors and their distance from the site. The IAQM study ¹ has been used to classify receptors as having high/medium/low sensitivity to dust. In the absence of detailed information about the sources of dust the site boundary has been used from which to measure potential impacts. Dust arising from a quarry can reduce amenity in the local community due to visible dust plumes and dust soiling. The generally coarser dust that leads to these effects may, therefore, be referred to as 'dis-amenity	PMAJ PMIN NMIN NMAJ	The site has no high/medium dust sensitive receptors within 400m of the boundary of the site The site has no or few high/medium dust sensitive receptors within 100m of the boundary of the site and some within 400m The site has no or few high/medium dust sensitive receptors within 100m of the boundary of the site and many within 400m The site has many high/medium dust sensitive receptors within 100m of the boundary of the site	PMIN (See Map 4) The site has no or few dust sensitive receptors within 100m of the boundary of the site and some within 400m. Residential and industrial uses are located at Manor Farm which lies some 350 metres away to the south of the site. The villages of Aldwark and Longcliffe lie just beyond 500 metres away to the north and south west respectively.

¹ Guidance on the Assessment of Mineral Dust Impacts for Planning, IAQM, May 2016 (v1.1)

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
		<p>dust'. The smaller dust particles can remain airborne longer, potentially increasing local ambient concentrations of suspended particulate matter (e.g. PM10 and to a lesser extent PM2.5), which is associated with a range of health effects. Mineral site impacts are more likely to result in PM10 particulates rather than PM2.5 matter.</p> <p>The IAQM study states that adverse dust impacts are uncommon beyond 400m of hard rock quarries. The greatest potential for high rates of dust deposition and elevated PM10 concentrations will be within 100m of a source and this can include both large (>30um) and small dust particles. Intermediate sized particles (10um to 30um) may travel up to 400m, with occasional elevated levels of dust deposition and PM10 possible. Particles of less than PM10 have the potential to persist beyond 400m but with minimal significance due to dispersion. These bands have been used to define indicators for assessment.</p>			
Dust - Air Quality/ Human Health	12	<p>NPPG advises that additional measures to control PM10s might be necessary if the actual source of the emission is in close proximity to any residential property or sensitive use. PM10s make up a small proportion of dust emitted from most mineral workings but can travel up to 1km.</p> <p>NPPG sets out an assessment framework for analysing the impacts of PM10s. The initial step is to ascertain if sensitive receptors lie within 1km of the site activity and/or PM10 levels are likely to exceed Air Quality Objectives (AQO). These objectives relate to the protection of human health and include maximum levels of PM10s. A detailed analysis of dust sources and/or</p>	PMIN NMIN NMAJ	<p>Site does not lie within 1000 m of an AQMA</p> <p>Site lies within 1000m of an AQMA</p> <p>Site lies within an AQMA</p>	<p>PMIN</p> <p>The site does not lie within 1000m of an AQMA</p>

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
		<p>PM10 levels would need to be undertaken at the planning application stage.</p> <p>We do, however, know the location of Air Quality Management Areas which are designated because Air Quality Objectives) are not being met. 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 an AQMA is an indicator that air quality is poor which might constrain the location of additional dust generating development. Given that PM10s can travel up to and over 1000m, this distance has been used as a cut-off point.</p>			
Transport – Local Amenity	13	<p>NPPF requires that mineral operations do not have unacceptable adverse traffic impacts. 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?</p>	<p>PMAJ</p> <p>PMIN</p> <p>NMIN</p> <p>NMAJ</p>	<p>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)</p> <p>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)</p> <p>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)</p> <p>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)</p>	<p>PMAJ (See Map 5)</p> <p>The HGV route to the strategic network (A5012) at Grangemill doesn't appear to pass any sensitive receptors. The B6056 does run along the boundary of the Peak District National Park, although mostly in a deep valley which assists in obscuring vehicles from view. Two accidents were reported at the A5012/B6056 junction at Grangemill over the previous three year period; however neither of these involved a HGV.</p>
Transport - Safe and effective access to and from the site	14	<p>What are the existing or proposed access arrangements for the site?</p>	<p>PMAJ</p> <p>NMIN</p> <p>NMAJ</p>	<p>Existing approved access to current highway standards</p> <p>Existing approved access not to current highway standard but no pattern of existing collisions at access location or no existing access , but subject to agreement with local highway authority new access likely to be accepted</p> <p>Existing approved access not to current highway standard and current pattern of existing collisions at access location</p>	<p>PMAJ</p> <p>The existing site access to the south of the B5056 appears to conform to existing highway standards. No accidents have been reported in the vicinity of this junction.</p>

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
				or no existing access and subject to agreement with local highway authority new access unlikely to be acceptable.	
Transport – Export route (vehicular)	15	What is the main export route (vehicular) from the site?	PMAJ PMIN NMIN NMAJ	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 Direct onto a B class road but with long haul to strategic road network Direct on to minor roads unsuitable for HGVs	PMIN The strategic road network (A5012) is accessed at Grange Mill via the B5056 around 1km to the northeast. This route appears suitable for HGV trips. At the A5012/B6056 Grangemill junction a notable proportion of vehicles route west along Via Gellia to join the A6 at Cromford. The emergence of HGVs at this location (Water Lane) contributes to an increase in congestion and impacts adversely on the Cromford Conservation area. Four accidents occurred at the Water Lane/Cromford Hill junction (non-involved HGVs) over the previous three year period. Therefore a significant increase in HGV movements at this location may not be welcomed.
Transport - Capacity for sustainable transport options	16	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	NMIN As with existing operations, it is anticipated that all material would be transported by road.
Environmental Criteria					
Water Environment – Flood Risk	17	NPPF requires that mineral operations do not have unacceptable adverse impacts on flood risk. 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 development in zones 1, 2 and	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	PMAJ (See Map 6) The site lies in flood zone 1 which has the lowest probability of flooding.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
		<p>3a. However, mineral working should not increase flood risk elsewhere and needs to be designed, worked and restored accordingly.</p> <p>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.</p>			
Water Environment –groundwater	18	<p>NPPF requires that mineral operations do not have unacceptable adverse impacts on groundwater. The EA designates Groundwater Source Protection Zones for important groundwater abstraction sources such as wells, boreholes and springs used for drinking water supply, and defines them according to the groundwater travel time to an abstraction. It is important within these Zones not to interrupt the flow or to pollute the groundwater. In principle, source protection zones 1 are the most important to protect from harmful development.</p>	<p>PMAJ</p> <p>PMIN</p> <p>NMIN</p> <p>NMAJ</p>	<p>Site lies outside a groundwater protection zone</p> <p>Site lies within a groundwater protection zone 3</p> <p>Site lies within a groundwater protection zone 2</p> <p>Site lies within a groundwater protection zone 1</p>	<p>PMIN (see Map 7)</p> <p>The site lies within a groundwater protection zone 1</p>
Water Environment - aquifer protection	19	<p>NPPF requires that mineral operations do not have unacceptable adverse impacts on groundwater. 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.</p>	<p>PMIN</p> <p>NMIN</p> <p>NMAJ</p>	<p>Site lies on a Non Aquifer</p> <p>Site lies on a Secondary Aquifer</p> <p>Site lies on a Principal Aquifer</p>	<p>NMAJ (see Map 8)</p> <p>The site lies on a Principal Aquifer</p>

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
Ecology – existing impacts from mineral extraction	20	NPPF requires that mineral operations do not have unacceptable adverse impacts on protected wildlife or geodiversity sites. Distinctions should be made between the hierarchy of international, national and locally designated sites. So that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks. Is there a 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	NMIN The proposed extension site would represent a southward expansion of existing quarrying activities, and so the area lies immediately adjacent to the Brassington Moor and Grange Mill Quarries complex. However, whilst mineral extraction has occurred and is occurring in the wider area (Slinter, Bone Mill and Dene Quarry for example), most of the intervening land has not been disturbed by quarrying. Neighbouring quarrying operations are not known to exert a significance force on local ecological receptors
Ecology – UK, regional and local BAP priority species and habitats	21	NPPF requires that mineral operations do not have unacceptable adverse impacts on protected wildlife or geodiversity sites. Distinctions should be made between the hierarchy of international, national and locally designated sites. So that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks. Is there a 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	NMIN (see Map 9) The proposed extension does not include any land designated for its' ecological interests (SSSI or LWS for example), although a small strip of ancient woodland (as identified locally) lies between the proposed extension and the B5056. Habitats within the site appear to consist of managed farmland unlikely to be of significant ecological interest in its own right, although great crested newts have been recorded from within and adjacent to the site. Impacts on this European Protected Species would need consideration and mitigation as part of any application, if a need is proven, although there should be ample opportunity to provide mitigation and enhancement within and adjacent to the extension area.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
Ecology – ecological coherence: Natural Areas/ Wildlife Corridors/link ages	22	NPPF requires that mineral operations do not have unacceptable adverse impacts on protected wildlife or geodiversity sites. Distinctions should be made between the hierarchy of international, national and locally designated sites. So that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks. 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	PMIN The site appears to support managed agricultural land. This accords with a very common land use in this area. However, the key ecological receptors in this area are the ancient woodlands of the Via Gellia Woodlands SSSI/SAC complex, and species rich calcareous grasslands found in the wider area. The site therefore does not make a significant contribution to the ecological coherence in the area
Ecology – Habitat Creation	23	NPPF requires that mineral operations do not have unacceptable adverse impacts on protected wildlife or geodiversity sites. Distinctions should be made between the hierarchy of international, national and locally designated sites. So that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks. Does the site provide opportunities for habitat creation?	PMAJ PMIN NMIN NMAJ	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 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.	PMIN The key ecological resources in this area are ancient woodlands and species rich calcareous grasslands, set within a managed pastoral landscape. If soil resources are managed, site restoration should offer the opportunity to deliver restoration to grasslands – which should be calcareous and species rich – with opportunities for woodland creation if deemed desirable. Restoration of or natural regeneration on benches could offer additional complementary habitat gains. Site restoration could therefore deliver a net gain for biodiversity through habitat creation, which would add to resources within the wider area, without necessarily directly enhancing existing habitat corridors.
Landscape-existing impacts from mineral extraction	24	NPPF requires that mineral operations do not have unacceptable adverse impacts on the landscape character of an area. What are the existing impacts on the landscape from any nearby mineral extraction?	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	NMIN A simple landscape with few landscape characteristics that can be employed in the satisfactory mitigation/restoration of the site

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
Landscape – Strength of Landscape Character	25	NPPF requires that mineral operations do not have unacceptable adverse impacts on the landscape character of an area. 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)	NMAJ (see Map 10) The proposed allocation area comprises pastoral fields enclosed by limestone walls with boundaries generally in good condition typical of the established character of the wider landscape. The site abuts and seamlessly connects to the Peak District National Park to the north west.
Landscape – impact on the Peak District National Park	26	NPPF requires that mineral operations do not have unacceptable adverse impacts on nationally protected landscapes (including 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	NMAJ 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
Historic Environment –designated sites and settings	27	NPPF requires that mineral operations do not have unacceptable adverse impacts on the historic environment. It requires that heritage assets are conserved in a manner appropriate to their significance, and places great weight on the conservation of designated heritage assets. Would working the site impact on a designated heritage asset/site and/or its setting?	PMIN NMIN NMAJ	No perceivable impact on a designation and/or its setting Impact on Grade II Listed Building/Registered Historic Park and Garden, Conservation Area and/or its setting Impact on Grade I or II* Listed Building/Registered Historic Park and Garden, Scheduled Monument, World Heritage Site and/or its setting.	PMIN (see Map 11) No direct impact on designated sites but any potential impact on the scheduled monument of Moot Low c500m to the east needs consideration.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
Historic Environment – Archaeology	28	NPPF requires that mineral operations do not have unacceptable adverse impacts on the historic environment including archaeological assets. What is the archaeological importance of the site?	PMAJ PMIN NMIN NMAJ	Few or no 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.	PMIN No earthworks impacted but the archaeology of these upland areas is also characterised by finds of prehistoric tools and Roman pottery and other finds which can indicate settlement. Some prehistoric finds are known from the site and the immediate surroundings
Historic Environment –historic landscape	29	NPPF requires that mineral operations do not have unacceptable adverse impacts on the historic environment including historic landscape character. 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)	NMIN The field pattern within the site is part of a wider intact field pattern of large regular planned enclosure probably dating to the period of parliamentary enclosure in the late 18 th or 19 th centuries. These are not rare but are a characteristic of this upland limestone area.
Best and most versatile agricultural land	30	NPPF requires that the long term potential of the best and most versatile agricultural should be safeguarded from the impacts of mineral working. At this stage we do not have detailed working and restoration proposals to assess how much BMV land will be affected, neither do we have detailed information about the location 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. What is the likelihood of the site containing best and most versatile (BMV) agricultural land?	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).	PMAJ (see Map 12) 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).
Conformity with other local plans (policies and allocations)	31	NPPF requires local planning authorities to co-operate on strategic cross border issues which includes ensuring that local plans are compatible	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	PMAJ The site is in conformity with the pre Submission draft Derbyshire Dales District Local Plan December 2016

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
		Is the site in conformity with other local plans?			

5. Conclusions

5.1 The following commentary seeks to identify those key factors that favour the allocation of the site and those that would constrain the site's allocation. In many cases the impacts are judged to be minor. A tabular summary of the assessment findings is set out below.

5.2 The following matters have been assessed as key positive factors favouring allocation:

- Nationally important resource - 85% of industrial grade limestone for animal feeds, glass, sealants and adhesives etc. are quarried in Derbyshire. Longcliffe supplies 30% of that output.
- Important local employer and provider of wealth to local economy in a predominantly rural area where mining is a traditional important local employer
- Whilst transport is road based the site has good transport and access arrangements and HGV's would not pass sensitive receptors to reach the strategic road network
- The site lies in an area where it is predicted that agricultural land will be of poor quality

5.3 The following matters have been assessed as key negative factors against allocation:

- Working the site is a very long term proposal which would see the life of the quarry extended by 30 plus years
- There is a concentration of mineral working in the area; the site lies adjacent to Grangemill Quarry operated by Ben Bennetts. Both the quarries have been in operation for a long period of time.
- The site will be visible from a number of surrounding locations that will allow views of parts of the area; including nearby villages, recreational trails and the local road network
- The landscape character of this site is typical of the wider landscape of the area with features in good condition
- The sites lies adjacent to the Peak District National Park from which large parts of the site will be visible
- The site lies within a Groundwater Source Protection Zone 1 and on a Principal Aquifer

Summary of Assessment – Aldwark/Brassington Moor

Criteria	PMAJ	PMIN	NMIN	NMAJ	Criteria	PMAJ	PMIN	NMIN	NMAJ
Economic Criteria					Environmental Criteria				
01Need for mineral	*				17Water Environment – Flood Risk	*			
02Quality/yield of mineral		*			18Water Environment –groundwater protection		*		
03Use of mineral resources	*				19Water Environment-aquifer protection				*
04Location of Processing Plant		*			20Ecology – existing impacts from mineral extraction			*	
05Existing Infrastructure		*			21Ecology – UK, regional and local BAP priority species and habitats			*	
06Sterilisation of Resources		*			22Ecology – ecological coherence: Natural Areas/ Wildlife Corridors/linkages		*		
07Employment		*			23Ecology – Habitat Creation		*		
Social Criteria					24Landscape- existing impacts from mineral extraction			*	
08Duration of mineral extraction				*	25Landscape – Strength of Landscape Character				*
09Visual Intrusion			*	*	26Landscape – impact on the Peak District National Park				*
10Noise		*			27Historic Environment –designated sites and settings		*		
11Dust		*			28Historic Environment – Archaeology		*		
12Dust -Air Quality/ Human Health		*			29Historic Environment –historic landscape			*	
13Transport – Local Amenity	*				30Best and most versatile agricultural land	*			
14Transport - Safe and effective access to and from the site	*				31Conformity with other local plans (policies and allocations)	*			
15Transport – Export route (vehicular)		*							
16Transport - Capacity for sustainable transport options			*						

Further Assessment

5.4 The MPA has set out that where potential negative impacts have been identified it would carry out further detailed work, in consultation with appropriate bodies, to ascertain if that impact could be mitigated or avoided to enable the site to progress forward for allocation. There are several key negative factors that have been identified in the initial Assessment which are considered below.

5.5 Key negative aspects requiring further assessment:

Duration of operation

- 5.6 Working the site is a very long term proposal which would see the life of the quarry extended by 30 plus years. The current permitted area has sufficient reserves to last until the latter part of the Plan period (between 2025 and 2031). The promoted area contains 38mt of reserves which based on a simple calculation of 1mt per year output will extend the life of the quarry to (between 2063 and 2029). The site also lies adjacent to Grangemill Quarry, operated by Ben Bennetts which has permission to work to 2042. Both the quarries have already been in operation for a long period of time.

5.7 Landscape and Visual impacts on sensitive visual receptors and PDNP

Whilst there are no sensitive receptors close to the promoted extension area, it will be visible from a number of locations around the site that will allow for views of parts of the area. These include some properties in Aldwark and Ible, local footpaths, recreational trails including the High Peak Trail and the Limestone Way, Harboro Rocks and the local road network. These impacts will also be in the context of the existing quarry and the adjoining Grangemill quarry which already exert significant adverse visual effects on surrounding visual receptors.

- 5.8 In terms of the specific impact on the landscape the promoted site area comprises pastoral fields enclosed by limestone walls with boundaries generally in good condition typical of the established character of the wider landscape. The site abuts and seamlessly connects to the PDNP to the North West.
- 5.9 In terms of the specific impact on the PDNP the site abuts the PDNP boundary forming part of its immediate setting and large parts of the site will be clearly visible from it. The statutory purposes of the National Park are to conserve and enhance the natural beauty, wildlife and cultural heritage of the park; and to promote opportunities for the understanding and enjoyment of the

special qualities of the park by the public. The assessment should take into account as to whether the proposed working of the site would have a significant impact on or harm those statutory purposes. There is also a duty on the MPA to 'have regard' for those statutory purposes in carrying out its functions; this duty also applies to proposals outside the designated area but impacting on its natural beauty. Concerns have also been expressed about effects on the tranquillity of the area and on its attractiveness to tourists.

- 5.10 Having regard to the above concerns, the scale of the promoted site but particularly its location adjoining the PDNP, very careful consideration is required to establish whether the site is likely to be acceptable in planning terms and therefore suitable for allocation. The MPA consider that in order to carry out such an assessment the level of information required would be more akin to that needed to support a planning application i.e. a detailed working scheme and mitigation proposals for the promoted site together with a detailed landscape and visual assessment.

Impact on the water regime

- 5.11 The site lies on a principal aquifer which 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. The site also lies within a Groundwater Source Protection Zone 1; protection zones are designated for important groundwater abstraction sources such as wells, boreholes and springs used for drinking water supply, and defined according to the groundwater travel time to an abstraction. It is important within these zones not to interrupt the flow or to pollute the groundwater. In principle, source protection zones 1 are the most important to protect from harmful development. Detailed planning conditions will be required to protect the 'water environment'.

Traffic Impacts

- 5.12 Although the criteria used to initially assess the traffic impacts of the development do not result in any negative scores this assessment is based on

a continuation of the operation as established under the 2007 permission when anticipated loaded vehicle daily movements was 100, with an average despatch load of 25 tonnes. Information submitted by the Company in support of the promoted extension site indicates that vehicle movements have doubled to 200 load per day (400 in – out movements) although production has not and is not anticipated to increase. The Company do state that smaller lorries are in use although it is unclear as to whether this pattern of movements will be for a sustained period. The County Council as Highway Authority has concerns about the junction of the B5036 and A5012 in terms of emerging vehicle visibility, it also has concerns about the number of HGVs which travel west along the Via Gellia to join the A6 at Cromford causing congestion and negative impacts on the Conservation Area. These matters would be exacerbated if there was to be a significant increase in the number of HGVs. This matter will need to be addressed in a detailed Transport Assessment.

- 5.13 Following consideration of the key negative factors that would constrain the allocation of the site, it is considered that matters relating to the landscape and visual impacts on sensitive visual receptors and the PDNP have not been satisfactorily addressed, to enable the MPA to establish that the site is likely to be acceptable in planning terms and therefore, suitable to be put forward for allocation at this stage. The County Council also has concerns about the possible increase in HGV movements to/from the site. The MPA will liaise further with the operator on these outstanding matters.

6. Outcome for the Proposed Approach

- 6.1 In view of the outstanding unresolved negative constraints the MPA is proposing not to allocate the site at this stage of Plan preparation but will continue to liaise with the operator about the future development of the quarry.