DERBYSHIRE AND DERBY MINERALS LOCAL PLAN

Towards a Minerals Local Plan:

Spring 2018 Consultation

Site Allocations:

Revised Initial Site Assessment

Ashwood Dale

December 2017

DERBYSHIRE County Council

Derby City Council

Contents

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: Spring 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 Ashwood Dale Quarry.

2. Ashwood Dale Quarry

2.1 Ashwood Dale Quarry, operated by Omya UK Ltd, lies within the Carboniferous Limestone resource around the Buxton area. Limestone is extracted for both industrial and aggregate purposes; information from the operator indicates that estimated annual future production rates amount to 135,000 tonnes of limestone for industrial purposes and 65,000 tonnes for aggregate uses. All stone processing occurs at Ashwood where the stone is crushed and milled.

2.2 The quarry principally produces industrial limestone products which are high purity, fine powders; these are used in the following markets: ceramic tiles and refractories, glass production, adhesives and sealants, and resin polymers and fillers. The quarry supplies both local and national markets with industrial minerals.

2.3 The colour and chemical purity of the limestone are critical for the sale of industrial products. The quarry contains two types of limestone the lighter coloured high quality industrial stone and the darker aggregate stone. The light stone is capable of producing industrial products without blending, however the darker stone cannot produce industrial products unless it is blended with the lighter stone. The promoted extension area would yield approximately 4.8 Mt of predominantly light stone and 5.0 mt of dark stone which is of better quality then the dark stone in the existing quarry. It is proposed to blend the light and dark stone within the extension area at a ratio of 71%/29% in order to maximise the amount of industrial stone produced. All the stone from the extension area would be used for industrial products.

2.4 In re-designing the method of working within the current permitted area, the operator would relinquish the extraction of the three quarry benches of permitted reserves below the existing quarry floor, together with an, as yet, untouched area situated along the northern boundary of the existing quarry with Cunningdale and the eastern most area of consented reserves. The stone in these areas is all dark limestone and amounts to approximately 10.0 million tonnes in total.

2.5 The total recoverable reserves within the quarry and extension area would be reduced to 9.8 mt compared to the current 14.7 mt within the existing site, a reduction of almost 5 mt. At the anticipated production rate the life of the quarry would be extended to 2066. A planning application, CM1/0315/158, has been submitted to work the promoted site; planning application CM1/0315/139 to extend the time limit for working the existing quarry has also been submitted.

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
- CM1/0315/158 lateral extension of quarry and CM1/0315/159 section 73 application to vary condition 3 of R1/0298/8 to extend time condition March 2015 Vol 2 Nontechnical Summary
- CM1/0315/158 and CM1/0315/159 February 2016 Submission of additional information
- CM1/0315/158 and CM1/0315/159 March 2015 Vol 3 Environmental Statement
- CM1/0315 and CM1/0315/159 November 2014 Vol 4b Transport Statement
- R1/031/0315 Periodic Review of Old Planning Permissions at Ashwood Dale

3.2 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: Spring 2018 Consultation

Revised Initial Site Assessment Background Information: Ashwood Dale, December 2017

3.3 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: Spring 2018 Consultation

Revised Initial Site Assessment Maps: Ashwood Dale, December 2017

4. Site Assessment

Initial Assessment of Sites

The Initial Assessment involves an assessment of each promoted site against the economic, social and environmental criteria set out in Table 1. The purpose of this Initial Assessment is 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 have been categorised has 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. The Initial 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.

The Initial Assessment will be 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.

The main generic 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, and
- Landscape Character Study assessments, Biodiversity Action Plans, Historic Environment Record (Sites and Monuments record)

- Local Transport Plan
- District Council prepared Local Plans

Assessment Sheet
An Assessment Sheet will be prepared for each of the promoted sites. Further information can be found in the following Paper

Maps
A set of Assessment Maps will be prepared for each of the promoted sites which will show the location of the site in relation to relevant matters used to inform the assessment process e.g. designated sites of historical or ecological importance, flood risk zones etc.

Scale of Impact
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
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
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

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

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
Economic Criteria					
Need for mineral	01	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). Is there an identified need for additional reserves to maintain supply throughout the Plan period?	PMAJ PMIN NMAJ	Detailed evidence to support the need for additional reserves to be worked at that quarry over the Plan period Some evidence to support the need for additional reserves to be worked at that quarry over the Plan period Insufficient evidence to support the need for additional reserves to be worked at that quarry over the Plan period	PMAJ (See Map1) Whilst this quarry produces both industrial and aggregate limestone its primary function is as an industrial limestone quarry. The current permitted reserves total approximately 14.7 million tonnes in total. Approximately 1.4 mt are light coloured stone suitable for industrial products and 13.3 mt are dark coloured stone suitable for aggregates. At the proposed production rates the permitted reserves of light coloured stone will last for about 10 years and therefore run out during the Plan period; the dark limestone would last for more than 200 years. This does not allow for blending of materials to increase the amount of industrial limestone products. The proposed extension area would yield approximately 4.8 mt of predominantly light stone and 5mt of dark stone which is of better quality than the dark stone in the existing quarry. The light and dark stone will be blended so that all of the stone from the extension area will be used to produce industrial products. The forecast production rates for the light stone would extend the life of the quarry to 2066. Permitted reserves of 10 mt of dark stone will be surrendered as part of the future development of the quarry. 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.
Quality/yield of mineral	02	NPPF requires local plans to meet objectively assessed development	PMAJ	Detailed geological evidence to support the quality/yield of the deposit (boreholes)	PMAJ Drilling has been carried out on site and borehole data

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
		requirements. In order to assess mineral development requirements it is important to determine the scale and nature of the promoted mineral resource. Has the operator provided sufficient information about the quality/yield sufficient of the resource?	PMIN NMAJ	Some geological evidence to support the quality/yield of the deposit (mapped) Insufficient evidence to support the quality/yield of the deposit	submitted. Borehole information confirms that the Bee Low limestone is all suitable for the production of industrial products. The Woo Dale limestone is of better quality than elsewhere in the quarry and could be blended with the Bee Low limestone. It is anticipated that the extension area can be worked and blended at a ratio of 71%/29% Bee Low to Woo Dale Limestone in order to maximise the production of industrial products.
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 quarry primarily produces industrial limestone products which are high purity, fine powders with exacting colour requirements and impurity constraints. Sales of industrial limestone products from Ashwood Dale are made up of 60% of various industrial powders, 20% animal feeds and 20% agricultural lime. The industrial powders are used in the following markets: Ceramic tiles and refractories, Glass production, Adhesives and sealants, Resin polymers and fillers. The lower grade material is sold for aggregate for road construction, concrete, drainage and general fill material.
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 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 both local and national. The Carboniferous Limestone resource around Buxton in Derbyshire is a well-established industrial limestone producing area of the Country. Aggregates are sold on average within 20 miles of the site.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
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 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 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?	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	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.
Employment	07	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. 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?	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 A total of seven local people are employed full time at the quarry. In addition four contractors are periodically employed on site for maintenance and repair work and over 60 HGV drivers visit the site during the year to collect products. Functions such as accounts, technical and commercial are provided by Omya staff from other sites. In 2013 the quarry had a turnover of £3 million and almost half of this expenditure was made locally on staff, maintenance, haulage and purchases.
Social Criteria					

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
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	Short term 0-10 years Medium term 10-20 years Long term 20-30 years Very long term 30+ years	NMAJ Working the site is a very long term proposal well in excess of 30 years.
Visual Intrusion	09	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 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.	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.	NMIN (See Map2) The site has some visually sensitive receptors and/or some parts of the site will be visible from them. There are no residences lying within 200 metres of the sites. Housing lying further away to the west of the site on the edge of Buxton will be adequately screened. Further housing in this area has been proposed in the adopted High Peak Borough Local Plan (see Criteria Ref. 31) for more details and will require adequate screening. There are several Public Rights Of Way from which large parts of the site will be visible. A footpath runs along Cunningdale on the northern quarry boundary .Two footpaths lead off this towards Bailey Flat Farm to the north of the site. A permissive path passes through part of the extension area. To the south of the quarry across the A6 the Midshires Way footpath leads from Cowdale to Staden on higher ground resulting in long distance views of the quarry.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
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	NMIN (See Map3) The site has no or few noise sensitive receptors within 200m of the boundary of the site and many within 500m. It lies within 300 metres from residences on the eastern edge of Buxton. Further housing, lying closer to the site, has been proposed in the adopted High Peak Borough Local Plan (see Criteria Ref. 37) for more details. Safeguards in the Plan require new housing to be a minimum distance of 200m from any blasting.
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 has 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 dust'. The smaller dust particles can remain airborne longer, potentially increasing local	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	NMIN (See Map4) The site has no or few high/medium dust sensitive receptors within 200m of the boundary of the site and many within 500m. It lies within 300 metres from residences on the eastern edge of Buxton. Further housing, lying closer to the site, has been proposed in the adopted High Peak Borough Local Plan (see Criteria Ref. 37) for more details. Safeguards in the Plan require new housing to be a minimum distance of 200m from any blasting.

[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
		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. 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.			
Dust - Air Quality/ Human Health	12	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. 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 PM10 levels would need to be undertaken at the planning application stage.	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	PMIN The site does not lie within 1000m of an AQMA

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
		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.			
Transport – Local Amenity	13	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?	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)	PMAJ (See Map 5) The existing site fronts directly onto the A6 strategic route for which there is an established access. No collisions have occurred at this junction over the previous 3 year period. A proportion of movements generated by the site pass through Buxton town centre. The site also abuts the Wye Valley SSSI. Irrespective of the above, the reported production and associated vehicle movements aren't anticipated to increase, therefore the changed impact on sensitive receptors is likely to remain unchanged.
Transport - Safe and effective access to and from the site	14	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 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 at access location or no existing access and subject to agreement with local highway authority new access unlikely to be acceptable.	NMIN The access appears to generally conform to current highway standards, however, forward visibility at existing junction marginally restricted to the east from the egress. No collision issue identified.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
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	PMAJ The export route is directly onto the strategic network (A6) which fronts the site. 70% to the west and 30% to the east.
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 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	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. Hard rock quarrying is classed as less vulnerable development which is appropriate in flood zones 1, 2 and 3a.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
		designed to reduce flood risk by providing flood storage and attenuation.			
Water Environment –groundwater	18	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 form harmful development.	PMAJ PMIN NMIN NMAJ	Site lies outside a groundwater protection zone Site lies within a groundwater protection zone 3 Site lies within a groundwater protection zone 2 Site lies within a groundwater protection zone 1	PMIN (See Map 6) The site lies outside a groundwater protection zone
Water Environment - aquifer protection	19	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.	PMIN NMIN NMAJ	Site lies on a Non Aquifer Site lies on a Secondary Aquifer Site lies on a Principal Aquifer	NMAJ (See Map 7) The site lies on the Carboniferous Limestone designated as a Principal Aquifer by the Environment Agency. The existing and proposed extraction is not below the water table which negates the need for pumping and any associated groundwater drawdown.

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 site lies outside of any designated sites of ecological value, but in between two dale systems, Ashwood Dale and Cunning Dale, the latter of which is designated as a SSSI and SAC, and the former is (in part) Local Wildlife Site. The existing Ashwood Dale Quarry is the only working in the immediate vicinity, and has not directly impacted on the most important ecological features such as the Dale systems. In the wider area however there are more extensive quarry workings (Tunstead, Old Moor, and Dove Holes Quarries, the A515 quarries), and more locally at Cowdale, Topley Pike etc. Nevertheless, in the vicinity of the proposed extension, impacts from existing workings have been minimal and localised, and in the wider context, quarry sites have largely respected the most valuable ecological features
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	PMIN (See Map 8) Outside of the extension boundary, there are both locally and statutorily designated sites (of national and international value) immediately adjacent to the site. No land within the extension area is covered by local or statutory nature conservation designations, and there is no evidence to suggest that habitats within the site are of notable ecological value. The grasslands on site will not be without some ecological interest, we have no evidence that these will be of significant ecological interest meriting protection or retention.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
Ecology – ecological coherence: Natural Areas/ Wildlife Corridors/linkages	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, likely agriculturally improved grasslands. This accords with a very common land use in this area. However, the key ecological receptors in this area are the unimproved species rich grasslands, woodland sand scrub of the dales systems in this 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 the habitats associated with the limestone dales systems. Whilst the quarry working will leave worked quarry faces and benches which drop to the quarry floor, opportunities to recreate manageable daleside habitats will be limited by quarry face profile, accessibility, stability and the availability of fill. Habitat creation on the quarry floor has the potential to produce species rich grasslands and other habitats which could be complementary too, if different from, those found within the dales systems. Restoration of or natural regeneration on benches could offer additional complementary habitat gains whilst not strictly replicating habitats found in the dale systems.
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 quarry

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)	NMIN (See Map 9) The extension area comprises a number of pastoral fields enclosed by limestone walls that characterise the wider landscape although many of these walls are in poor condition. The site is close to the Peak District National Park.
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	NMIN 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.
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 10) Scheduled monument DDR8210 Limekilns and associated structures at Cow Dale Quarry lie to the south east of the area but these are associated with earlier limestone quarrying so impact on setting should be considered negligible.

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.	PMAJ There are no known archaeological earthworks in the area and no known archaeological finds. There remains archaeological potential as the fields are currently permanent pasture so little possibility for the discovery of flint tools or other indicative artefacts.
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 proposed area is small but elements of the wider but now truncated field patterns are still visible. There is a small area of fossilised strip fields, part of the once much more extensive area of enclosed common fields. To the east of tongue Lane are some more regular fields, probably part of the later enclosure of the commons.
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 11) The site lies in an area where there is a low likelihood of bmv (less than 20% is likely to be bmv) Detailed evidence from the planning application suggests that the proposals would affect 6.5 ha of grade 4 or 5 grazing land which would be replaced in the restoration scheme for the quarry.
Conformity with other local plans	31	NPPF requires local planning authorities to co-operate on strategic cross border issues which includes ensuring that local plans are	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	PMAJ The site is in conformity with the adopted High Peak Local Plan. A duty to cooperate matter regarding the impacts of

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
(policies and allocations)		compatible Is the site in conformity with other local plans?		The site is not in conformity with other local plans and the issue is unlikely to be resolved	the quarry extension on a proposed housing allocation was successfully resolved during the local plan process which resulted in modifications to the Plan and to the quarry extension proposal.

5. Conclusions

Revised Initial Assessment

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; the quarry principally supplies high quality fine industrial powders for a variety of applications
- The quarry serves national markets for industrial applications and local markets for aggregates it is well located to serve markets in the Manchester conurbation to the north east of the Plan area
- Detailed borehole information available justifying quality of deposit
- 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 HGV's would not pass sensitive receptors to reach the strategic road network
- The relinquishment of permitted reserves below the water table would potentially benefit the adjoining SAC

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

- Working would extend the duration of the quarry to around 2066 (taking account of only the light stone)
- There are some sensitive visual receptors (footpaths and dwellings) to the north and the south of the site that will be able to gain views of part of the extension area including views from the National Park.
- The site lies outside of any designated sites of ecological value, but in between two dale systems, Ashwood Dale and Cunning Dale, the latter of which is designated as a SSSI and SAC, and the former is (in part) Local Wildlife Site. The existing Ashwood Dale Quarry is the only working in the immediate vicinity, and has not directly impacted on the most important ecological features such as the Dale systems. It is important that any future working does not compromise these nearby ecological assets.

- Working the site will lead to the loss of an area that generally accords with the established landscape character and the loss of some historic landscape features
- There are few landscape characteristics that can be employed in the satisfactory mitigation/restoration of the quarry; careful consideration needs to be given to achieve its acceptable restoration
- The promoted site would extend mineral working towards existing and proposed housing on the edge of Buxton; appropriate safeguards would need to be in place to protect local amenity from the impact of mineral working
- The quarry lies on a principal aquifer, appropriate safeguards would need to continue to protect the water regime

Summary of Revised Initial Assessment – Ashwood Dale

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		*		
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	*			
12Air 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.

5.5 Whilst there are several key negative factors that have been identified in the initial assessment a planning application (CM1/0315/158) has been submitted to the County Council for mineral extraction from the promoted site, a further application (CM1/0315/159) seeks to vary planning condition 3 of R1/0298/8 to extend time for the duration of working. Although the planning application has not yet been determined it is at an advanced stage of consideration.

5.6 Key negative aspects requiring further assessment:

Duration of operation

5.7 Whilst working the promoted area would prolong the life of the site to over 30 years, the scale of the promoted area is relatively modest, anticipated annual production is not anticipated to increase and the proposal involves the relinquishment of 10 mt of permitted reserves.

Landscape and Visual impacts from sensitive visual receptors and PDNP

5.8 The Assessment noted, and representations were received on the fact that some receptors (footpaths and dwellings) to the north and the south of the site that will be able to gain views of part of the extension area including views from the National Park. Detailed consideration of these matters as part of the planning application process has resulted in the submission of a revised restoration scheme incorporating screening bunds dry stone walling and tree planting appropriate to the local landscape to mitigate impacts to the satisfaction of the PDNPA and Natural England.

Impacts on adjoining ecological assets

5.9 The Assessment noted, and representations were received on the proximity of the site to designated sites of ecological value which would need adequately protecting, particularly from the impacts of dust. Detailed consideration of these matters as part of the planning application process indicates that these impacts can be adequately mitigated through the imposition of planning conditions to the satisfaction of Natural England.

Impacts on adjoining ancient woodland

5.10 The Woodland Trust is concerned about the impact of the promoted site on a section of ancient woodland in Ashwood Dale, as it considers that the site will be directly adjacent to the remainder of the ancient woodland that follows the railway line adjacent to the A6. Detailed consideration of this matter as part of the planning application process indicates that this impact can be adequately mitigated through the imposition of planning conditions.

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 new proposed limit on the depth of excavations would be above the level of groundwater. The Environment Agency has no objection in principle subject to detailed planning conditions to protect the ‘water environment’.

Impact on proposed housing allocation

5.12 A potential conflict of interest was identified between the expansion of the quarry and the development of a potential housing allocation. A statement of common ground was agreed between Omya, Derbyshire County Council (and on behalf of Derby City Council) and High Peak Borough Council which set

out a mutually agreed solution to enable both developments to proceed. The agreement proposed a modest relinquishment of mineral resources, approximately 200,000 tonnes and a reduction in area and scale of the proposed housing allocation. Agreed changes to the proposed housing allocation have been incorporated in the adopted High Peak Local Plan and agreed changes to the proposed mineral extraction area have been incorporated in the planning application.

5.13 Following consideration of the key negative factors that would constrain the allocation of the site, and with particular regard to detailed work undertaken as part of the process to consider the planning application, it is considered that the site should be put forward for allocation in the Proposed Approach.

6. Outcome for the Proposed Approach

6.1 Allocate the promoted extension at Ashwood Dale Quarry for mineral extraction to commence during the Plan period.

Updated Information December 2017

6.2 The MPA has very recently been made aware that Omya UK Ltd, the current operator of the existing quarry and promoter of the extension, is reviewing its investment and operations at a number of sites. The operator has informed the MPA that Ashwood Dale will close in the short term, in 2018, whilst Omya considers the long term future and development of its sites. In view of this, the MPA consider there to be uncertainty as to whether additional reserves will be required to be worked at the quarry during the Plan period. Nevertheless, the MPA is proposing to allocate the promoted extension to Ashwood Dale at this stage but will continue to liaise with Omya about the long term development of the quarry.