

DERBYSHIRE AND DERBY MINERALS LOCAL PLAN

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

**Site Allocations:
Revised Initial Site Assessment
Ashwood Dale
Background Information Paper**

December 2017

1. Purpose of this Paper

- 1.1 The purpose of this Paper is to set out the sources of information that have been used to carry out the Revised Initial Assessment of the promoted extension to Ashwood Dale Quarry.

2. Sources of Background Information

- 2.1 Sources of information for Assessment:

Derbyshire and Derby MLP Questionnaire for promoted sites

Revised Initial Assessment Maps, December 2017 (Maps showing 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)

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 1 Planning Applications and Periodic Review

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 Vol 4b 5 Transport Statement November 2014

3. This Section is set out to reflect the Assessment Criteria contained in Table 1.

Table 1: Assessment Criteria

Economic Criteria

Criteria 01 Need for Mineral

Source of Information: 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 Vol 3 ES March 2015

Is there an identified need for additional reserves to maintain supply throughout the Plan period?

- 3.1 Ashwood Dale Quarry lies within the Carboniferous Limestone resource around the Buxton area. Limestone is extracted for both industrial and aggregate purposes; information from the operator¹ 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 the Ashwood site where the stone is crushed and milled; a small amount of product is taken to Dowlow quarry to be bagged.
- 3.2 The quarry 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, and resin polymers and fillers. Omya UK Ltd is particularly known for its industrial powders. The quarry supplies both local and national markets with industrial minerals.

Industrial Product Market Locations are as follows:

¹ CM1/0315/158 and CM1/0315/159 March 2015 Vol 3 Environmental Statement, Paragraph 3.8.6

Industrial Products- Manchester, Lancashire, Gloucestershire, Nottinghamshire, Staffordshire and Essex

Agricultural Products and Animal Feed- North Wales, Cheshire, Lancashire, Cumbria, Yorkshire and Shropshire

Aggregate Products Market Locations:

Buxton area and within a 20 mile radius

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 actual amount of blending depends on the level of calcium carbonate and colour within the working faces at any particular time. Blends of up to 50% of each material have been historically possible but often the blends require more than 50% of the lighter stone. In recent years it has not been possible to carry out any blending but it is the intention to do this again to maximise the amount of industrial mineral.

The current permitted reserves total approximately 14.7 Mt (January 2015). 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 (135,000 tonnes) the permitted reserves of light coloured stone will last for just 10 years and therefore run out during the Plan period; the dark limestone would last for more than 200 years. The latter figure does not allow for blending of materials to increase the amount of industrial limestone products. Blending can be carried out with some of the dark limestone if the material is of suitable quality.

The Company's proposed extension area would yield approximately 4.8 Mt of predominantly light stone and 5mt of dark stoned, although the dark stone here is of better quality than 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.

Additionally, the Company propose not to extract the three quarry benches below the current quarry floor, the permitted areas along the northern boundary of the existing quarry with Cunningdale or the eastern most area of consented reserves. Planning permission to extract in these areas, amounting to 10 mt of dark stone, would be relinquished as part of the extension proposals. This could be especially beneficial for the adjoining Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI), in so far that it should help avoid any hydrological impacts on the SAC/SSSI system.

The reduced development of the existing quarry and the proposed extension area would yield a total of 4.8 Mt and of light coloured limestone and 5 Mt of dark coloured stone. The total recoverable reserves within the quarry and the extension area combined would therefore be reduced to 9.8 Mt. This compares to the current 14.7 Mt of permitted reserves within the existing site, an overall reduction of almost 5 Mt.

At a proposed annual output rate of 135,000 tonnes of industrial mineral and 65,000 tonnes of aggregates the development of the quarry would last for approximately 50 years. The current end date for the site is 2042; however this is insufficient to allow the extraction of the existing reserves or the limestone within the extension area. It is therefore proposed to extend the end date by 24 years to 2066 to enable all the industrial limestone in the existing site and extension area to be extracted.

Criteria 02 Quality/Yield of Mineral

Source of Information: Map 1 Site Location and Resources, 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 Vol 3 ES March 2015

Has the operator provided sufficient information about the quality/yield of the resource?

- 3.11 Drilling has been carried out on site and borehole data 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.

Criteria 03 Use of Mineral Resource

Source of Information: 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 Vol 3 ES March 2015

Is the end use proposed appropriate for the type of mineral?

- 3.12 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.

Criteria 04 Location of site to Market Areas

Source of Information: 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 Vol 3 ES March 2015

Is the site appropriately located in relation to the market areas it is intended to serve?

- 3.13 Industrial Limestone products attract national markets although the north west features strongly in terms of customers whilst Aggregates are sold within the Buxton area or within 20 miles of the quarry.

Criteria 05 Existing Infrastructure

Source of Information: 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 Vol 3 ES March 2015

Is there existing infrastructure that would be utilised by the proposed operation to process the mineral?

- 3.14 Infrastructure exists on site to process the mineral.

Criteria 06 Conservation of Resources

Source of Information: 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 Vol 3 ES March 2015

If the site wasn't allocated is it likely that the site would remain unworked due to its location/scale?

- 3.15 Hard rock quarries are expensive to develop. The proposed extension is relatively small 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 07 Employment

Source of Information: 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 Vol 3 ES March 2015

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?

- 3.16 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.

Criteria 08 Duration of Mineral Extraction

Source of Information: 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 1 Planning Applications and Periodic Review

What is the intended timeframe for working the site?

- 3.17 At a proposed annual output rate of 135,000 tonnes of industrial mineral and 65,000 tonnes of aggregates the development of the quarry would last for approximately 50 years. The current end date for the site is 2042; however this is insufficient to allow the extraction of the existing reserves or the limestone within the extension area. It is therefore proposed to extend the end date by 24 years to 2066 to enable all the industrial limestone in the existing site and extension area to be extracted.

Social Criteria

Criteria 09 Visual Intrusion

Source of Information: Map 2 PROW, Site Visit, CM1/0315/158 and CM1/0315/159 March 2015 Vol 3 Environmental Statement

What is the visual impact on sensitive receptors?

- 3.18 The Company has submitted a detailed Landscape and Visual Impact Appraisal. This information has been used to provide baseline evidence of sensitive receptors verified on site.
- 3.19 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.

- 3.20 There are several Public Rights Of Way from which large parts of the site will be visible. A footpath runs along Cuningdale 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 10 Noise

Source of Information: Map 3 Noise Indicator Zones, Site Visit, CM1/0315/158 and CM1/0315/159 March 2015 Vol 3 Environmental Statement

What is the impact of noise on sensitive receptors?

- 3.21 The ES sets out information on the noise impact of the proposal on sensitive receptors. This information has been used to provide baseline evidence of sensitive receptors, verified on site.
- 3.22 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. 31) for more details. Safeguards in the Plan require new housing to be a minimum distance of 200m from any blasting.

Criteria 11 Dust

Source of Information: Map 4 Dust Indicator Zones, Site Visit, CM1/0315/158 and CM1/0315/159 March 2015 Vol 3 Environmental Statement

What is the impact of dust on sensitive receptors?

- 3.23 The ES sets out information on the dust impact of the proposal on sensitive receptors. This information has been used to provide baseline evidence of sensitive receptors, verified on site.
- 3.24 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.

Criteria 12 Dust – Air Quality/Human Health

Source of Information: DEFRA Air Quality Management Areas Map 2017

What is the impact of dust on air quality/human health?

- 3.25 The north east part of Buxton lies within 1km of the site and therefore there is the potential for wind-blown dust to be transported to sensitive receptors. There are, however, no Air Quality Management Areas within 1km of the site which would indicate existing air quality issues.

Criteria 13,14,15,16 Transport

Source of Information: Map 5 Transport, CM1/0315 and CM1/0315/159 Vol 4b 5 Transport Statement November 2014

What are the traffic and transport impacts of the proposal?

- 3.26 Annual production of limestone is around 200,000 tonnes, 135,000 which is industrial grade and 65,000 is construction aggregate. In terms of traffic flows attracted to the quarry, the majority (approximately 80%) is transported in powder form in tankers which have loads between 27 and 30 tonnes. The remainder is transported in tipper trucks which loads averaging between 20 and 30 tonnes. The aggregate sales are transported in ridged and articulated tippers with loads ranging between 20 and 30 tonnes. Neither the level of

production or hours of operation are anticipated to change should the extension be allowed although working would extend from 2042 to 2066.

- 3.27 Based on the quantum of industrial and aggregate outputs, the Traffic Assessment establishes that 25 tonnes represent an average journey. In terms of directional distribution approximately 70% of quarry traffic travels to/from the west with 30% heading to/from the east. The estimated annual output would result in 54 HGV movements per day. When taking into account the directional distribution identified above, this equates to 20 loads / 40 movements along the A6 to the west of the site access and 8 loads / 16 movements along the A6 to the east of the site access per day.
- 3.28 The County Council as Highway Authority is not concerned if the present tonnage output and volume and pattern of vehicle movements are maintained.

Environmental Criteria

Criteria 19, 20, 21 Water Environment

Source of Information: Maps 6, 7, Environment Agency data, CM1/0315/158 and CM1/0315/159 March 2015 Vol 3 Environmental Statement

- 3.29 Based on information provided by the Environment Agency the site lies in flood zone 1 which has the lowest probability of flooding.

The site lies outside of any groundwater source protection zone.

The site lies on a Principal Aquifer which require the greatest protection from harmful development.

- 3.30 The ES includes an assessment of impacts on the water regime it concludes that the proposed development of Ashwood Dale Quarry, which include limited and simple measures for the amelioration of impacts upon the water environment, would result in no hydrogeological or hydrological based concerns that would warrant a refusal of planning permission.

3.50 **Criteria 20,21,22,23 Ecology**

Source of Information: Map 8 Ecological Assets

3.50 **Criteria 24, 25, 26, Landscape**

Source of Information: Map 9 Landscape Character Type Areas

3.50 **Criteria 27, 28, 29 Historic Environment**

Source of Information: Map10 Heritage Assets

Revised Initial Assessments of the impact of working the site on Ecology, Landscape and the Historic Environment have been undertaken by the County Council's Conservation and Design Section.

3.50 **Criteria 30 Best and Most Versatile Agricultural Land**

Source of Information: Map11, DEFRA's predictive agricultural land classification map 2001

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).

3.50 **Criteria 31: Conformity with other local plans (policies and allocations)**

The site is in conformity with the adopted High Peak Borough Local Plan. A duty to cooperate matter regarding the impacts of 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.