DERBYSHIRE AND DERBY MINERALS LOCAL PLAN

Towards a Minerals Local Plan:

Spring 2018 Consultation

Site Allocations:

Revised Initial Site Assessment

Whitwell

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 proposed way of planning for an adequate and steady supply of industrial limestone, as set out in Chapter 7 of the Proposed Approach. 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 sites at Whitwell Quarry.

2. Whitwell Quarry

2.1 The operator Tarmac Ltd is promoting four extensions to the existing quarry at Whitwell. Where appropriate the four sites have been assessed individually against the assessment criteria. In many cases however it is the quarry operation as a whole that the assessment applies to.

2.2 Whitwell Quarry lies on the Permian Limestone resource to the north east of the County to the east of Bolsover. The quarry is long established where dolomitic limestone is extracted principally to supply the industrial limestone market. High grade stone is processed at the adjacently located Whitwell

Works (operated by Lhoist), mainly to form refractory products for use in the manufacture of steel; a large percentage of which are exported. Mineral of lesser quality is used to produce agricultural lime and a range of construction grade aggregates. Annual mineral production averages around 1 million tonnes split 50/50 between the industrial and aggregate uses.

2.3 The proposed four extension sites will generate an additional 3.23 mt of industrial limestone thereby providing a supply of high grade stone for a further 6 years beyond the existing permitted reserves. These relatively small extensions represent the last economic industrial limestone reserves at Whitwell Quarry from within the Plan area. A planning application, CM5/0416/4, has been submitted to work these areas and was approved by the County Council's Regulatory Planning Committee on 9th October 2017 subject to the signing of a Section 106 Agreement on detailed requirements.

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

Whitwell Quarry Development Strategy 2013 2 13

Planning Application CM5/0416/4 and supporting documents (At this Initial stage of Assessment the planning application documents have been used to provide baseline information only)

Report of Director of the Strategic Director of Economy, Transport and Communities to Derbyshire County Council, Regulatory Planning Committee 9th October 2017.

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: Whitwell, 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: Whitwell, December 2017

4. Site Assessment

Revised Initial Assessment of Sites

4.1 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 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 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.

4.2 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.

4.3 The Initial 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 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

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	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) Whitwell Quarry supplies dolomitic limestone for industrial and aggregate purposes roughly on a 50/50 split. It is important to consider the economic importance of the quarry in maintaining supply for both these purposes. Existing permitted reserves of industrial limestone remain at two areas of current working (southern and eastern areas) and total some 6.5 million tonnes (mt) which at a rate of extraction of 0.5 mtpa should last for almost 13 years i.e.2028. Industrial limestone reserves in the vicinity of the railway tunnel total some 4.5 mt; this permission consented currently under a ROMP (R5/0705/13) permission expires in 2019. Whilst the company intends to work these reserves, this operation will require the diversion of the Robin Hood railway line which will need to be the subject of a Transport and Works Act 1992 application. In view of this, the timing and contribution of these reserves is uncertain which supports the need for additional reserves at the quarry. The proposed four extension sites will generate an additional 3.23 mt of industrial limestone thereby providing a supply of kiln grade stone for a further 6 years beyond the existing permitted reserves. These small extensions represent the last economic industrial limestone reserves at Whitwell Quarry from within the Plan area. In terms of aggregates whilst the most recent LAA, 2017, concludes that there are more than sufficient reserves to

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
					last throughout the Plan period Whitwell is the only quarry located in the east of the County and could supply potential growth areas that have been identified across the border in Nottinghamshire.
Quality/yield of mineral	02	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?	PMAJ PMIN NMAJ	Detailed geological evidence to support the quality/yield of the deposit (boreholes) Some geological evidence to support the quality/yield of the deposit (mapped) Insufficient evidence to support the quality/yield of the deposit	PMAJ Detailed drilling has been carried out on site and borehole data submitted. Borehole information confirms that the proposed sites contain kiln grade high iron and low iron resources as well as civils for aggregate and agricultural uses.
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 kiln grade mineral is used to produce refractory products for use in the manufacture of steel; a large percentage of which are exported. Mineral of less quality is used for aggregate and agricultural purposes.
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 the dolomitic industrial limestone produced at Whitwell are both national and international. In terms of aggregate mineral the quarry is well located to serve the eastern part of the Plan area and cross border markets in Nottinghamshire and South Yorkshire.

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 both on site and at the adjacent works 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 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 these sites aren't worked as extensions to the existing quarry they are unlikely to be worked in the future. The promoted areas are relatively small in scale and would unlikely be viable to be worked independently.
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 The existing Quarry complex supports some 220 jobs and makes a contribution to the local economy of over £6 million per year.
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	NMIN Working the existing and promoted sites is a long term proposal between 25 and 30 years; particularly the aggregate element.
Site 1 North Extension					
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.	PMIN (See Map 2) The nearest visually sensitive receptors are residences which lie some 200 metres to the north of the site on the southern edge of Whitwell village; none have views into the active quarry. Footpaths 73 and 20 lie at the bottom of the planted bunds which lie north of this extension area and views are screened by a bund lying south of the footpaths. Where footpath 20 is on higher ground at its eastern end there are open views into the northern and main quarry areas.
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 Map3a) The nearest noise sensitive properties are residences which lie some 200 metres to the north of the site on the southern edge of Whitwell village. This Assessment concludes that the site has a few properties on the southern edge of Whitwell which lie just beyond 200 metres of the site whilst many properties, forming the southern part of Whitwell village, lie within 500 metres.

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
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 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)	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 Map 4a) There are no dust sensitive properties lying within 100 metres of the site. The nearest residences lie some 200 metres to the north on the southern edge of Whitwell village. The southern part of Whitwell village lies within 400 metres to the north of the site. This Assessment concludes that the site has no or few high/ medium dust sensitive receptors within 100 metres of the site and many within 400 metres.

[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
		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. 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.	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
Site 2 North Eastern Extension					

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
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.	PMAJ (See Map 2) The nearest sensitive receptors to the site are residences which lie over 250 metres away on the south eastern edge of Whitwell; none have views into the active quarry. The site is effectively screened by a belt of young trees and vegetation between the former mineral line and Southfield Lane.
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 Map 3b) The site has no noise sensitive properties within 200 metres of its boundary. The nearest residences lie over 250 metres away and form part of the south eastern edge of Whitwell. This Assessment concludes that the site has a no or few properties within 200 metres of the site and many within 500 metres.
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[2] has been used to classify receptors has having	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 Map 4b) There are no high/medium dust sensitive properties lying within 100 metres of the site; the nearest residences are over 250 metres away on the south eastern edge of Whitwell. There are many properties within this south east area which lie within 400 metres of the site.

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

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
		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 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.	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
		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. 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.			
Site 3 East Extension					
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.	PMAJ (See Map 2) There is only one sensitive receptor near to this site; Hennymoor farm lies some 500 metres away to the south east. However well-established vegetation covers the land along the eastern edge of the site negating any views.

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	PMAJ (See Map 3c) The site has no sensitive properties within 500 metres of its boundary. Hennymoor Farm lies some 500 metres away to the south east.
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[3] 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	PMAJ (See Map 4c) The site has no high/medium dust sensitive receptors within 400 metres of its boundary. Hennymoor Farm lies some 500 metres away to the south east.

[3] 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.			
Site 4 South Eastern Extension					
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.	PMAJ (See Map 2) The site has few sensitive receptors; Hennymoor Farm lies approximately 350 metres to the east; Crags Lodge and Creswell Crags visitor centre lay some 160 and 330 metres respectively to the south. The southern end of the existing quarry is well screened by peripheral acoustic bunds/fencing and an existing plantation. Some gaps in the plantation allow glimpses into the site from Bridleway 5.

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	PMIN (See Map 3d) The site has one sensitive property within 200 metres of the site and few within 500 metres. Hennymoor Farm lies approximately 350 metres to the east; Crags Lodge and Creswell Crags visitor centre lie some 160 and 330 metres respectively to the south.
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[4] 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	PMIN (See Map 4d) The site has one high/medium dust sensitive property within 200 metres of the site and few within 500 metres. Hennymoor Farm lies approximately 350 metres to the east; Crags Lodge and Creswell Crags visitor centre lie some 160 and 330 metres respectively to the south.

[4] 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) HGVs will continue to use the designated route, for which there is a routing agreement in place, between the site and the A60 via Crags Road and Hennymoor Lane. All HGV traffic therefore avoids residential areas and other receptors within Whitwell village. There isn't an existing collision or congestion problem and vehicle trips are expected to remain constant.
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.	PMAJ The existing purpose built access appears to conform to existing standards.

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	PMIN The site is located around 2 km from the A60 which is reached by the designated, established route, for which there is a routing agreement in place, via Crags Road, and Hennymoor Lane (B6042)
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) Based on information provided by the Environment Agency the site is situated in Flood Zone 1. This zone has the least probability for flooding and mineral working is appropriate development in this location.

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) Site lies outside a groundwater source 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) Site lies on a Principal Aquifer. Detailed evidence in support of the planning application suggests that any impacts on the aquifer are acceptable. The base of the quarry is below the groundwater level and therefore the quarry is dewatered to maintain dry working area. The impact of dewatering on groundwater levels decreases with distance from the quarry. The areal extent of the groundwater level depression will be limited by leakage to groundwater from existing watercourses. Following restoration of the quarry pumping will cease and groundwater levels are anticipated to recover.

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	PMIN The proposed extension areas are comparatively small in the context of the existing quarry, which they lie immediately adjacent to. At the very local level, the existing quarry has significantly affected habitats within and around the proposed extension areas. In the wider area however, quarrying has been less prevalent, and the landscape remains largely intact.
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) The proposed extension areas are not known to support any habitats or species of ecological interest

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	PMAJ The habitats within the proposed extension areas have negligible ecological coherence with the most notable habitats in the surrounding area, including at Creswell Crags, and Hollinhill and Markland Grips SSSI.
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 extension areas have the potential to be restored to deliver biodiversity gain, although the significance of this will be limited by their small size
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)	PMIN (See Map 7) The proposed extension areas have been previously affected by land-uses that aren't necessarily consistent with the established character of the wider landscape such as soil storage mounds and recent plantation woodland.
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	PMAJ The site is not close to the PDNP boundary and no part 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 8) The south east site lies closest to the Creswell Crags Scheduled Monument but it is screened by the tree belt and there is no significant setting issue.

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 Most of the areas have already been disturbed so will have little potential for buried remains. There has been extensive monitoring of previous extension areas in the quarry with very few significant finds coming to light so even in undisturbed areas the potential seems low.
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)	PMAJ Historic field pattern largely gone
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).	NMIN (See Map 9) The sites lie within an area where there is a high likelihood of best and most versatile (bmv) agricultural land; more than 60% of the land is likely to be classed as bmv. However only the north east extension contains a small area of bmv agricultural land which will not be lost during the working and restoration of the site.
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 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	NMIN Bolsover DC is producing a new local plan. The draft Plan published October 2016 identifies a strategic housing site for a minimum of 200 dwellings at the former Whitwell

Criteria	Criteria Ref.	Considerations	Scale of impact	Indicators	Assessment
(policies and allocations)		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	Colliery. This proposal would bring some housing to approximately 350 metres from the north eastern extension. It is considered that any impacts are likely to be capable of mitigation.

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 and internationally important resource supplying the UK's only producer of steel refractory products, exported to many countries
- Quarry well located to serve aggregates market in the east of the Plan area
- Detailed borehole information available justifying quality of deposit
- Important local employer and provider of wealth to local economy in area previously decimated by coal mine and related industrial manufacturing closures and currently undergoing regeneration
- The extension areas are small, and the eastern and south eastern sites in particular are relatively isolated from sensitive receptors and would not impact on local amenity
- 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

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

- Working would extend the duration of the quarry considerably to around 2040; the latter years would be for aggregate working only
- Working the northern and north eastern extension would extend the quarry closer to the edge of Whitwell village and appropriate safeguards would need to be in place to protect local amenity
- The south eastern extension would extend working towards Creswell Crags, appropriate safeguards regarding blasting and vibration would need to continue
- The quarry lies on a principal aquifer, appropriate safeguards would need to continue to protect the water regime

- 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

Summary of Initial Assessment – Whitwell

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 site to market areas		*			20Ecology – existing impacts from mineral extraction		*		
05Existing Infrastructure		*			21Ecology – UK, regional and local BAP priority species and habitats		*		
06Conservation 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		*		
Site 1 North Extension					26Landscape – impact on the Peak District National Park	*			
09Visual Intrusion		*			27Historic Environment –designated sites and settings		*		
10Noise			*		28Historic Environment – Archaeology	*			
11Dust			*		29Historic Environment –historic landscape	*			
12Air Quality/ Human Health		*			30Best and most versatile agricultural land			*	
					31Conformity with other local plans (policies and allocations)			*	
Site 2 North East Extension									
09Visual Intrusion	*								
10Noise			*						
11Dust			*						
12Air Quality/ Human Health		*							
Site 3 East Extension									
09Visual Intrusion	*								
10Noise	*								
11Dust	*								
12Air Quality/ Human Health		*							
Site 4 South East Extension									
09Visual Intrusion	*								
10Noise		*							
11Dust		*							
12Air Quality/ Human Health		*							
13Transport – Local Amenity	*								
14Transport - Safe and effective access to and from the site	*								
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 (CM5/0416/4) has been submitted to the County Council for mineral extraction from the promoted sites, an extension of time for the duration of working and a revised restoration scheme. Following detailed consideration of all planning matters involved in working the sites the County Council's Regulatory Planning Committee on 9th October 2017 resolved to approve the application subject to the completion of a Section 106[5] agreement on detailed requirements.

6. Outcome for the Proposed Approach

6.1 Planning permission has been granted in principle for the working of the four promoted sites at Whitwell Quarry and, therefore, they are considered acceptable for mineral extraction. Given that the planning permission has not yet been finalised, awaiting the section 106 agreement, or subsequently implemented the promoted sites are not counted as permitted reserves in the Plan but will be put forward as allocations in the Proposed Approach.

6.2 Allocate the promoted extensions to Whitwell Quarry for mineral extraction to commence during the Plan period.

[5] Section 106 of the Town and Country Planning Act 1990 (as amended)