WHITWELL QUARRY

LANDSCAPE AND VISUAL IMPACT ASSESSMENT FOR THE EXTRACTION OF LIMESTONE FROM EXTENSION AREAS AT WHITWELL QUARRY, DERBYSHIRE

Prepared for Tarmac
by
Hankinson Duckett Associates

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INTRODUCTION

1.1 Background

1.1.1 This report describes a landscape and visual impact assessment for four proposed extensions to Whitwell Quarry, near Worksop, Derbyshire. The application boundary (the site) extends to 191ha (which includes the main quarry, the northern quarry, the tunnel area, the eastern area, the four proposed extensions together with the minerals processing area including the ready-mix plant and site access and exit). The Whitwell Quarry Complex refers to the entire complex including all the quarry, processing and plant areas as well as Whitwell Works located to the east of the main quarry. The Whitwell Quarry Complex is centred at National Grid Reference SK53240 75254. It is proposed to extend extraction of Magnesian limestone into the following four separate areas as shown on Site Location Plan HDA 1:

- The North Extension (approximately 5.31ha);
- The North-East Extension (approximately 2.77ha);
- The East Extension (approximately 0.38ha); and
- The South-East Extension approximately 0.96ha).

1.1.2 The extension areas cover a total of 9.42ha. This assessment was undertaken by Christine Marsh of Hankinson Duckett Associates (HDA) and commissioned by MJCA (on behalf of Tarmac) in May 2014.

1.2 Scope and Purpose of Report

1.2.1 The report is intended to inform the mineral planning authority (Derbyshire County Council) of any potential landscape and visual impacts arising from working the extensions to Whitwell Quarry. The report describes the landscape, visual and rights of way baselines for the site and its surrounds (at the time of preparing this application), and a landscape and visual assessment of the existing site is undertaken. This is followed by predictions of the landscape and visual impacts that are likely to occur through the extraction and operation of the proposed development.

1.3 Methodology

1.3.1 National landscape guidance uses landscape character as a basis for policy. Natural England, in its former guise as the Countryside Agency, developed methodology for the character-based approach to landscape assessment (Ref 1). It describes the application of landscape character assessment at different scales: the national/regional scale, local authority scale and local scale. The second and third editions of the ‘Guidelines for Landscape and Visual Impact Assessment’ (2002 and 2013, Ref 2) set out landscape assessment methodology, which provides a foundation, with adaptation, for use in project-specific landscape impact assessment.
1.3.2 The approach to this landscape and visual assessment is based upon this guidance, and upon HDA’s extensive practical experience of assessment work. The detailed methodology used when carrying out the assessment is set out in Appendix A. The site survey was carried out in January and June 2015 and took the form of walkover surveys to provide an overview of the quarry extension proposals.

2 LANDSCAPE PLANNING POLICY CONTEXT

2.1 National Planning Policy

2.1.1 In March 2012, the Government issued the ‘National Planning Policy Framework’ (Ref 3). This supersedes most of the government’s previous national planning documents including ‘Planning Policy Statements’ and ‘Planning Policy Guidance’ and sets the context for Local Authorities’ revised development plan policies.

The main emphasis of the Framework is:

‘14. At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking.’

2.1.2 Chapter 7 – Requiring good design

‘Planning policies and decisions should aim to ensure that developments:

- establish a strong sense of place, using streetscapes and buildings to create attractive and comfortable places to live, work and visit;
- will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation;
- are visually attractive as a result of good architecture and appropriate landscaping.’

These are the key points relevant to the proposed development.

2.1.3 The ‘National Planning Practice Guidance’ (Ref 4) was launched as a web-based resource on 6 March 2014. The Guidance supports and informs the Framework, and Paragraph 059 in the ‘Minerals’ section (reference ID: 27-059-20140306) sets out what should be included in a landscape strategy and thus is of relevance to this landscape and visual assessment.

It states:

A site-specific landscape strategy to accompany applications for either a new site or any significant extension to an existing working site should include:

- Defining the key landscape opportunities and constraints;
- Considering potential directions of working, significant waste material locations, degrees of visual exposure etc.;
- Identifying the need for additional screening during operations;
- Identifying proposed after uses and options for the character of the restored landscape.
2.2 Regional Policy

2.2.1 Derbyshire County Council is in the process of preparing its new Minerals Local Plan (jointly with Derby City Council). Consultations are going (due to run until 3 April 2016), and this will be used to inform the draft Plan, which will be subject to further consultation before being published and then examined by an independent inspector in 2017. In the interim, the following ‘saved’ policies of the Derby and Derbyshire Minerals Local Plan (D&DMLP, Ref 5) have particular relevance to this report:

- Policy MP1 – The environmental impact of mineral development;
- Policy MP3 – Measures to reduce environmental impact;
- Policy MP4 – Interests of acknowledged environmental importance;
- Policy MP6 – Nature conservation – mitigation measures; and
- Policy MP10 – Reclamation and after-use.

2.2.2 Policy MP26 of the D&DMLP, which related directly to Whitwell Quarry, expired on 27 September 2007, and therefore no longer forms part of policy. It is worth noting, however, that the wording of Policy MP26 provides planning policy support for some of the extension areas now proposed, however some areas allocated are already being worked, for example, at the southern end of the quarry. The full wording regarding Whitwell Quarry and Policy MP26 is included at Appendix B.

2.3 Local Policy

2.3.1 Bolsover District Council adopted the Bolsover District Local Plan (BDLP, Ref 6) in February 2000, and ‘saved’ policies remain in force until they are replaced by new policies. The Bolsover District Local Plan Strategy (2005-2014) was withdrawn at a Council meeting on 28 May 2014, and on 15 October 2014, the Council resolved to commence the preparation of a new single Local Plan for the District to replace the BDLP. In the Local Development Scheme (2014-2018, Ref 7), the timeframe for adoption of the new Local Plan is September 2018. The following ‘saved’ policies from the 2000 BDLP are therefore considered to have particular relevance to this application:

- Policy ENV 2 – Protection of the best and most versatile agricultural land and the viability of farm holdings;
- Policy ENV 5 – Nature conservation interests throughout the District;
- Policy ENV 6 – Designated and registered nature conservation sites;
- Policy ENV 8 – Development affecting trees and hedgerows; and

2.3.2 The full wording of these policies is included at Appendix C. Policy ENV 9 has not been saved; its purpose was to ensure, either through imposing conditions or by entering into a legal agreement (Section 106), that planting of trees and vegetation was carried out.
2.3.3 The Whitwell Quarry Complex is not located within an Area of Outstanding Natural Beauty (AONB), however, it is located close to one of the most heavily protected archaeological and geological sites in Britain, Creswell Crags. The Crags is a Site of Special Scientific Interest (SSSI), a Scheduled Monument, a Conservation Area and a registered Park and Garden (refer to Plan HDA 2). It is managed by the Creswell Heritage Trust. On 27 January 2012, Creswell Crags was put on the UK’s Tentative List for World Heritage Site status. Whitwell Quarry is also a Regionally Important Geological and Geomorphological Site (RIGS) and partly designated as a non-statutory Local Wildlife Site (site reference BO134 – Whitwell Quarry Margins).

3 SITE CONTEXT
3.1 Location (Plan HDA 1, Plan HDA 7 for photo locations and Plan HDA 10 for photos)
3.1.1 Whitwell Quarry Complex is located less than 1km south of the centre of Whitwell (at The Square) and the western edge of the quarry runs parallel to and about 0.3km east of the A616 through the settlement of Creswell. The quarry has developed on either side of a railway tunnel containing the Robin Hood Line between Worksop and Creswell. Planning consent is in place for the removal of the mineral forming the tunnel and the diversion of the railway line. The northern quarry and main quarry are linked by a haul route near the western portal of the tunnel.

3.1.2 To the east of the main quarry lie the former colliery tips of Whitwell (to the north-east) and Belph (to the east), the latter of which is linked to the main quarry by an underpass beneath Crags Road. To the south of the main quarry lies Creswell Crags which is separated from the quarry by the realigned Crags Road (the B6042 formerly ran along the bottom of the gorge) and Tommy Moor Lane bridleway (Hodthorpe & Belph Bridleway 5) now diverted to the south of the southern part of the main quarry). The processing plant is located in the east of the main quarry and the HGV access and exit to the Whitwell Quarry Complex are located on Crags Road and Southfield Lane. Whitwell Works is adjacent to the eastern boundary of the main quarry.

3.2 Geology
3.2.1 The site supplies high purity dolomitic limestone (refractory grade products) in combination with civil grade stone (used in ready-mixed concrete, civil engineering and for agricultural lime).

3.3 Landform and Drainage (Plan HDA 3)
3.3.1 The site is located on the Whitwell and Creswell Crags limestone ridge that runs generally from Whitwell in the north at approximately 130m AOD, to Creswell Crags in the south at approximately 90m AOD. Land between the northern quarry and the main quarry rises to a maximum height of 117m AOD, retained due to the presence of an active railway line, contained in a tunnel beneath. Land to the north-east and east of the main quarry is
occupied by an area of former coal workings, including a coal tip landform ranging in height between approximately 95m AOD and 105m AOD. Beyond the Whitwell Coal Tip and the Belph Tip (north and south of Millash Road respectively) is located an area of vale farmland comprising large arable fields, small hamlets and isolated farmsteads at levels no greater than 95m AOD.

3.3.2 Immediately to the south of the site, Creswell Crags is located at approximately 85m AOD to 95m AOD at the southern end of the limestone ridge. The Wollen Valley, to the west of the site, runs from approximately 84m AOD (e.g. at Lower Mill Farm) to 72m AOD (e.g. at Fox Green) and contains the River Wollen, which runs parallel and approximately 300m from the western boundary of the site and adjacent to the eastern edge of Creswell. The western slopes of the valley rise westwards through Creswell to approximately 120m AOD (at Camp Hill). The topography is generally more elevated to the west and north-west towards Clowne where a landscape of arable fields and scattered farmsteads rises to approximately 130m AOD (at Hollin Hill, to the north of the A616 Sheffield Road).

3.4 Local Land Use and Vegetation (Plan HDA 4)

3.4.1 The local area is influenced largely by coal mining and limestone quarrying activities, adjacent to small residential settlements (e.g. Whitwell and Creswell), set amongst undulating agricultural land.

3.4.2 The active railway line runs in a tunnel, above which is a currently retained ridge of land between the northern quarry and main quarry. The railway is a significant linear landscape feature in the area, together with three major roads comprising the A60, A616 (through Creswell and Clowne) and the A619 (to the north of Whitwell). There is an extensive network of public rights of way in the vicinity of the site, connecting the main settlements of Whitwell and Creswell.

3.4.3 Vegetation cover to the north of the site is characterised by small intermittent copses and low hedgerows, which separate the northern edge of the site from the southern edge of Whitwell. Narrow shelter belts of mixed deciduous/coniferous woodland are located along the western and north-eastern edges of the site. To the south of the site, beyond the realigned Crags Road (B6042), lies a more substantial woodland block, separating the southern edge of the site from the northern edge of Creswell Crags. The Welbeck Estate, to the east, beyond the vale edge farmland, contains extensive areas of deciduous, mixed and coniferous woodland, in the form of plantations or individual parkland trees centred on Welbeck Abbey, approximately 3km to the south-east of the Quarry.

3.4.4 To the west of Southfield Lane, south of the Robin Hood railway line, but east of a former mineral railway branch line, lies a birch plantation which occupies the northern part of a
potential industrial development site owned by the Homes and Communities Agency, HCA). To the south of the HCA land lies a coal mine methane gas extraction and electrical power generation compound, known as Whitwell Energy Park (operated by Alkane Energy UK Ltd). To the east side of Southfield Lane lies a car repair garage and other former industrial land associated with the adjacent former Whitwell Colliery. The Whitwell Colliery Tip and Belph Tip effectively obscure most views from the east and south.

3.4.5 The landscape features within each extension area are shown on Plan HDA 5 and are described in Table 1 below together with an assessment of their sensitivity to change:
<table>
<thead>
<tr>
<th>Ref on Plan HDA 5</th>
<th>Feature</th>
<th>Description of Condition/Value</th>
<th>Length, Area or Number</th>
<th>Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>North Extension</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1</td>
<td>Rough Grassland</td>
<td>Area to north of the edge of the current quarry workings. Area is managed though cutting rather than grazing.</td>
<td>2.4ha in site</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Soil Mounds</td>
<td>Northern screening bund straddles the extraction boundary, 2.5-3m high (124m AOD maximum). To the south of the screening bund lie 3no temporary storage mounds to maximum height of 7m (central mound 122m AOD maximum height with base at 115m AOD). All mounds are covered in rough grassland which is managed through cutting rather than grazing.</td>
<td>0.67ha of bund in site + 3 mounds @ 1.4ha</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Quarry</td>
<td>Bare ground and cliff forming part of the quarry workings within permitted extraction area of northern quarry.</td>
<td>0.86ha in site</td>
<td>Very Low</td>
</tr>
<tr>
<td>W1</td>
<td>Dry Stone Wall</td>
<td>Collapsed wall, 0.5-1m high, with gaps. Wall formed field boundary before being isolated by quarry activity.</td>
<td>30m in site</td>
<td>Low</td>
</tr>
<tr>
<td>H1</td>
<td>Hedgerow</td>
<td>Outside and to the east of the extraction boundary, a mature, poorly managed hawthorn hedgerow to 2-3m high with some gaps; hedge consists of occasional blackthorn, hazel and elder. Hedgerow was part of former field pattern, before being isolated by quarry activities.</td>
<td>154m adjacent</td>
<td>Low</td>
</tr>
<tr>
<td><strong>North East Extension</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1</td>
<td>Plantation</td>
<td>Belt of mixed native advanced planting, 25m wide, planted in 2004/2005 but has grown at variable rates reflecting the different species used and exposure to prevailing westerly winds. The planting lower down the eastern-facing slope (thus more sheltered) has attained heights of 4-5m, whereas in more exposed locations, it is about 2m high.</td>
<td>1.1ha in site &amp; 0.47ha adjacent</td>
<td>Low</td>
</tr>
<tr>
<td>G2</td>
<td>Rough Grassland</td>
<td>Area between young plantation and disused mineral railway line (predominant species of Yorkshire Fog and perennial rye-grass). Area is managed though cutting rather than grazing.</td>
<td>1.3ha in site</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Quarry</td>
<td>Areas of bare ground and cliff forming part of quarry workings within permitted extraction area of north-east extension No 1. Remnants of a temporary topsoil mound, 2-3m high, exist above the cliff edge, which raises the skyline (maximum height of 96m AOD).</td>
<td>0.12ha in site + 0.25ha of mound</td>
<td>Very Low</td>
</tr>
<tr>
<td></td>
<td>Disused Mineral Railway Line</td>
<td>Lying beyond the north-east boundary, the steep embankments are covered with scrub vegetation, 3-5m high, predominantly of hawthorn.</td>
<td>290m adjacent</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>East Extension</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G3</td>
<td>Rough Grassland</td>
<td>Area between active quarry and treed embankment beyond eastern boundary. Area not managed actively.</td>
<td>0.2ha in site</td>
<td>Low</td>
</tr>
<tr>
<td>S1</td>
<td>Scrub</td>
<td>Mixed native shrub vegetation self-seeded alongside former mineral line.</td>
<td>0.04ha in site</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Quarry</td>
<td>Bare ground and cliff forming part of quarry workings within permitted extraction area of south-east extension.</td>
<td>0.13ha in site</td>
<td>Very Low</td>
</tr>
<tr>
<td>P2</td>
<td>Treed Embankment</td>
<td>Forming eastern boundary, rising from Crags Road, semi-mature, mixed, native trees (including some non-native purple maples) to 21m maximum width.</td>
<td>0.32ha adjacent</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>South East Extension</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil Mounds</td>
<td>Temporary screen mounding to 2-3m high covered in rough grassland.</td>
<td>0.2ha in site</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>G4</td>
<td>Rough Grassland</td>
<td>Area between active quarry and soil mound and between areas of plantation</td>
<td>0.21ha in site</td>
<td>Very Low</td>
</tr>
<tr>
<td>P3</td>
<td>Plantation</td>
<td>Forming northern part of eastern boundary, mature woodland, predominantly pine trees (about 15-20m high).</td>
<td>0.13ha in site</td>
<td>Medium</td>
</tr>
<tr>
<td>P4</td>
<td>Plantation</td>
<td>Forming southern part of eastern boundary, semi-mature (over 25 years old), predominantly deciduous woodland (about 8-12m high) predominantly of beech, pedunculate oak, field maple and sweet chestnut, but also pine present.</td>
<td>0.18ha in site</td>
<td>Medium</td>
</tr>
<tr>
<td>Bridleway</td>
<td>Realigned bridleway outside of extension area, separated from realigned Crags Road by mixed native hedgerow.</td>
<td>150m adjacent</td>
<td>Medium</td>
<td></td>
</tr>
</tbody>
</table>
4 LANDSCAPE CHARACTER

4.1 Introduction (Plan HDA 6)

4.1.1 Landscape character can be defined as a distinct pattern of elements that occur consistently in different parts of the landscape. It is determined by a number of underlying factors including topography, past and current trends in land use, vegetation cover and cultural and historical associations. The wider landscape character descriptions are drawn from the published landscape character assessments (see Sections 4.2 and 4.3 below).

4.2 National Scale

4.2.1 Natural England subdivides England into 159 National Character Areas (NCA, Ref 8). The landscape around Whitwell falls within NCA No 30 ‘South Magnesian Limestone’. The ‘Key Characteristics’ as described by Natural England which are relevant to the study area are listed below and the full description is reproduced at Appendix D:

- Underlying limestone creates an elevated ridge with smoothly rolling landform; river valleys cut through the ridge, in places following dramatic gorges. There are some dry valleys;
- Fertile, intensively farmed arable land, with large fields bounded by clipped hawthorn hedges, creating a generally large-scale, open landscape;
- Semi-natural habitats, strongly associated with underlying limestone geology, including lowland calcareous grassland and limestone scrub on the free-draining upland and gorges with wetland habitats associated with localised springs and watercourses, but all tend to be small and fragmented;
- Long views over lowlands to the east and west, and most prominent in the south;
- Woodlands combining with open arable land to create a wooded farmland landscape in places, where traditionally coppiced woodlands support dormouse populations;
- Localised industrial influences, especially in the Aire and Don valleys, and in the south and along the fringe of the Coal Measures to the west, with former mines and spoil heaps (many now restored), power lines, settlements, industry and transport routes.

4.2.2 One of the key drivers of landscape change identified in the NCA profile (Ref 8) is:

- There is likely to be continued demand for resources of limestone, sand and gravel, and open cast mining of coal, which may impact on the local landscape and the historic environment, but also open up possibilities for habitat creation and creation of appropriate landscape features and associated habitats.

4.3 Regional Scale

4.3.1 The East Midlands Regional Landscape Character Assessment (EMRLCA, Ref 9) identifies 31 regional landscape character areas (five of which cover regional seascapes) across an expansive geographical area equivalent to the extent of the Government Office Region of the East Midlands. The assessment places the site in Group 6, and more specifically in Area 6D: Derbyshire Limestone Farmlands. The key characteristics of this character area are listed below, with an extract from the full assessment included at Appendix E:

- West facing escarpment and gently rolling limestone dipslope with areas of subdued relief and rolling summits;
• Series of deeply incised valleys and gorges;
• Fertile soils supporting productive arable farmland, set within a regular pattern of large hedged fields;
• Well wooded dipslope with large and medium woodlands and belts of trees;
• Nucleated pattern of small stone villages and large industrial age towns;
• Consistency in the use of ‘Magnesian Limestone’ for simple cottages, workers houses, industrial premises and grand country houses up until the widespread use of brick in the later Victorian period;
• Widespread evidence of past mining operations, with localised evidence of continued quarrying activities; and
• Long distance views from the scarp slope westwards over the neighbouring Settled Coalfield Farmlands.

4.3.2 In the section of the EMRLCA (Ref 9) titled ‘Landscape Change and Management’, under the heading ‘Minerals and Waste’, it describes ‘Forces for Change’, highlighting that there are “a number of large quarries serving local and national demand for limestone”, and that there is pressure to expand these, which “is likely to result in further visual intrusion, loss of tranquility and adverse effects on heritage features and wildlife habitats.” Under the heading ‘Shaping the Future Landscape’, it states that “The aim should be to manage quarrying, ensuring activity is located away from visually prominent and sensitive locations”, however in devising proposals for after-use “quarryes can provide valuable landscape, geodiversity, biodiversity and recreation benefits”. These key points have been taken into consideration in refining the extent and proposed restoration of the extension areas forming the subject of this application.

4.3.3 The Landscape Character of Derbyshire (LCD, Ref 10) identifies 39 County Landscape Character Types, and places the site in Character Area 30: South Magnesian Limestone, which in turn is split into two Landscape Character Types: Limestone Farmlands and Limestone Gorges. The Gorges form a very restricted part of Character Area 30, with the majority of the area, and the site, lying within the Limestone Farmlands. The key characteristics of the Limestone Farmlands are listed below, though a full description is included at Appendix F:
• Gently rolling limestone plateau;
• Fertile soils supporting productive arable farmland;
• Large and medium estate woodlands;
• Amenity trees around small rural villages and isolated farmsteads;
• Large regular fields bounded by hedgerows;
• Straight roads with uniform width verges;
• Nucleated settlement pattern;
• Historic buildings constructed of limestone with red clay pantile roofs;
• Panoramic views across lowland to the west; and
- Long distance views over plateau often ending in a wooded skyline.

4.3.4 In the summary section of the LCD (Ref 10), it states “Recent development, coupled with a growth in intensive agriculture, has produced a landscape with few remaining natural habitats”, however, it is considered that the proposed restoration strategy for the quarry could counter this, through the adoption of the planting and management guidelines identified in the LCD. These include “large scale woodland planting” and “re-establish and enhance physical links between existing isolated woodland and hedgerows”.

4.4 Local Authority Scale

4.4.1 Bolsover District Council does not have its own landscape character assessment, relying on the Landscape Character of Derbyshire (Ref 10). The county landscape types cover large areas of the county, rather than describing smaller scale changes in character that are likely to exist around specific settlements such as Whitwell and Creswell. In order to assess the potential impact on landscape character in the vicinity of the quarry, and in line with guidance (Ref 1), Local Landscape Character Areas (LLCAs) have been identified. These are based upon previous assessments, but have been updated to reflect recent changes in the landscape. The LLCAs are shown on Plan HDA 6 and their characteristics are summarised in Table 2 below.

4.4.2 In summary, the predominantly rural landscape character of the area is strongly influenced by settlement and extraction industries, with coal and limestone workings resulting in marked changes in landform. Former coal mining has left a legacy of spoil heaps, principally Whitwell and Belph Tips, though both these areas are undergoing changes. For example, Belph Tip will be removed as part of the existing permitted development of Whitwell Quarry, whilst there are internal, early stage proposals for the reclamation of Whitwell Tip. Limestone extraction is ongoing and has seen the removal of all but a small part of the limestone ridge, which is characteristic of the local landscape.
<table>
<thead>
<tr>
<th>County LCT</th>
<th>LLCA</th>
<th>Relative Position to Proposals</th>
<th>Characteristics</th>
<th>Sensitivity</th>
</tr>
</thead>
</table>
| Limestone Farmland | Limestone and Coal Workings | Extension areas lie within the Limestone Workings | • Spoil tipping has resulted in major modifications to the local landform.  
  • Steep engineered faces contrast to natural slopes of surrounding landscape.  
  • Widely visible from surrounding area particularly from the east.  
  • Limestone quarry well contained by surrounding landform, intervening vegetation and built development.  
  • Whitwell processing plant (including 90m high chimney) visible over a large area.  
  • Local Wildlife Site and RIGS. | Very Low |
| Undulating Farmland | Lies to north and south of Creswell; adjacent to North Extension | | • Numerous high points and spurs create strongly undulating landscape.  
  • Fields medium to small scale.  
  • Hedgerow trees emphasis more enclosed character of the area. | Medium |
| Enclosed Undulating Farmland | Located to south of quarry, south of Creswell Crags. | | • Arable farmland.  
  • Smaller scale landscape with copses, shelterbelts and taller hedgerows surrounding small fields.  
  • Gently undulating ground.  
  • Greater sense of enclosure. | Medium |
| Wollen Valley Farmland | Located to the west and adjacent to the quarry. | | • Small to medium scale landscape.  
  • Confined by settlement of Creswell and edge of Whitwell Quarry.  
  • Fields relatively small, contained by low hedgerows and dry stone walls. | Medium |
| Vale Edge Farmland | Located to the south-east of the quarry. | | • Arable fields and generally small in size.  
  • Hedgerows low with few copses or hedgerow trees.  
  • Colliery tip and A60 strong influence on area. | Low |
| Vale Farmland | Located to the north-east of the quarry. | | • Low lying gently rolling topography.  
  • Fields medium to large scale and contained by managed hedgerows.  
  • Significant blocks of woodland situated close to watercourses.  
  • Large scale landscape.  
  • Strong links with the mining industry.  
  • Located on rising and high ground.  
  • Comprise mainly early twentieth century terraced housing.  
  • Small areas of recent development on outskirts. | Low |
| Urban Areas | Whitwell located to the north of the quarry and Creswell located to the west of the quarry. | | | Low |
| Welbeck Estate | Located to the east of the quarry (beyond the Vale Edge Farmland). | | • Formal parkland landscape surrounding Abbey and House with peripheral woods and ponds (Registered Park and Garden).  
  • Fields large and often without hedgerow boundaries.  
  • Wooden/metal railed fences define roadsides and field boundaries.  
  • Tree lined avenues. | High |
| Limestone Gorges | Creswell Crags | Located to the south of the quarry. | • Limestone gorge with steep cliffs, exposed rock faces and ponds.  
  • Wooded vegetation surrounding the Crags.  
  • Incorporates SSSI, Scheduled Monument and on tentative list for World Heritage Status. | Very High |
5 EXISTING VISIBILITY

5.1 Methodology

5.1.1 This section addresses the extent and character of views towards Whitwell Quarry as it currently stands, i.e. with extraction in progress throughout the consented areas (with no restoration in progress except belts of planting upon temporary soil storage mounds).

5.1.2 In this undulating landscape, large structures (such as the processing plant and its stack) form important landmarks (though some people may consider these to be visual detractors). The northern quarry and main quarry lie to either side of the remaining extent of the limestone ridge through this area, retained due to the existence of the active railway line in tunnel beneath. The land above the tunnel rises to a maximum height of 117m AOD and limits views between the two parts of the quarry. Planning consent is in place for the removal of the mineral which forms the tunnel and the railway diversion.

5.2 Existing Visibility of the Site (Plan HDA 7)

Public Viewpoints

5.2.1 North Extension – Footpaths Whitwell 73 and 20 lie at the bottom of the planted bunds which lie to the north of this extension area. These are the closest public rights of way to any of the extension areas and users are currently well screened from operations in the quarry by the engineered temporary soil store bunds lying to the south of these footpaths. Pole mounted cables run parallel to the bunds and form a visual detractor through this area. Where Footpath 20 is on higher ground, over the permanent bund and at its eastern end where it forms the continuation of this path over the railway tunnel, there are open views into both the northern quarry and main quarry.

5.2.2 North East Extension – A corridor of view exists from the length of Southfield Lane between the southern edge of the birch plantation on the HCA land and the access road from Whitwell Works. The current views towards the North East Extension are of rising ground topped with a young belt of trees (with some gaps having been re-planted recently). This belt of young trees, together with vegetation along the former mineral line and on the intervening land between this former railway line and Southfield Lane, is effective at screening views from the north and east.

5.2.3 East Extension – The main viewpoint into this part of the site is from the over-bridge carrying Crags Road over the internal access road between the Belph Tip and the southern part of the main quarry. Existing, well-established vegetation covers the sloping ground rising from Crags Road to the north of the bridge along the eastern edge of this proposed extension area. The area proposed for the East Extension is not visually prominent from Crags Road, and it is views of the eastward facing edge of the high ground in the middle of the main quarry that are more prominent from this viewpoint.
5.2.4 **South East Extension** – As with the East Extension, this area of the quarry is visible from the Crags Road over-bridge, but only the northern extremity of the area is visible. The southern end of the main quarry is currently well screened from Crags Lane by peripheral acoustic bunds/fencing and an existing plantation, consisting predominantly of pine. It is intended that this plantation will be retained and managed to improve its screening qualities. Some gaps in this perimeter plantation allow glimpses into the southern part of the main quarry from the eastern end of Hodthorpe & Belph (H & B) Bridleway 5, the realigned Tommy Moor Lane.

5.2.5 Views into the current extraction areas are only possible from two public rights of way, Footpath 20 particularly where it crosses the ridge above the railway tunnel, allowing views into both parts of the quarry, and Bridleway 5, where glimpses through gaps in the pine plantation on the south-east perimeter of the main quarry are possible. The sensitivity of footpath users to change is generally assessed to be of High to Medium sensitivity as users generally have the time to appreciate the landscape around them.

5.2.6 There are very few residential properties that have close distance views into the current extraction areas; for example the following properties are the closest to each extension area, however none have views into the active quarry:

- **North Extension** – 190m to the north of this extension, on the southern edge of Whitwell, off Franklin Avenue;
- **North East Extension** – over 250m to the north of this extension, on the south-eastern edge of Whitwell off Bridge Close;
- **East Extension** – over 500m to the south-east of this extension is Hennymoor Farm;
- **South East Extension** – Hennymoor Farm is 470m to the east of this extension and Craggs Lodge is 270m to the south of this extension.

5.3 **Summary of Existing Visibility**

5.3.1 The site is relatively well contained in relation to local visual receptors, due in part to the rising landform around the edges of the site and the belts of woodland planting on the edges of the current extraction areas. However, there are views from a limited number of properties, restricted to those lying to the north-east of the quarry, located in Whitwell.

5.3.2 There are no views into the northern or main quarry for train passengers, as the line is in deep cutting before it enters the tunnel under the ridge. The site has a surprisingly constrained visual influence, with limited potential for significant adverse impacts on the amenity of existing views. No properties are assessed as having a High sensitivity to the type of development proposed, with a limited number of properties in east Whitwell being assessed as having Medium sensitivity. Users of nearby footpaths are assessed as having a High sensitivity, particularly FP20, although users currently have views into the main and northern quarry.
### Table 3: Existing Visibility

<table>
<thead>
<tr>
<th>Receptor Name (Plan HDA 7)</th>
<th>Relative Position to Extension</th>
<th>Description of Existing View(s)</th>
<th>Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>North Extension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whitwell FP20, FP73 &amp; FP18 - Northern Bund</td>
<td>Adjacent to northern boundary</td>
<td>Looking south from the top of the northern 10m high permanent bund, most views into the northern and main quarry are blocked by the northern screening bund. (Photo 1) however, there are partial views of the land above the railway tunnel, including views of the haul route near the western portal from limited locations and glimpsed views of the top of the southern working face of the northern main quarry (Photo 2). To the east are open views towards Hodthorpe and the A60 in conjunction with the quarry processing plant and the two colliery tips. To the west, above the western quarry bunds are views of Creswell.</td>
<td>High</td>
</tr>
<tr>
<td>Whitwell FP20</td>
<td>Around eastern end of northern quarry and above railway in tunnel</td>
<td>Views north are of the top of current northern extraction face of the northern quarry, topped by the temporary soil bunds, beyond which can be seen the tops of the parallel power cables on poles behind which are the tops of the trees on the permanent bund (Photos 3a and 3b). Further to the west, views into the northern quarry are more extensive (Photos 4). Views to the south are dominated by the processing plant with partial views of the top of the western extraction face of the main quarry (the North East Extension), which can be seen beyond the screen of planting around the eastern portal (Photo 5).</td>
<td>High</td>
</tr>
<tr>
<td>Whitwell</td>
<td>To north of quarry, closest property being within 190m of North Extension</td>
<td>There are no views from properties in Whitwell into the currently active parts of the site, though in reverse views from Footpath 20 above the railway in tunnel, properties on the eastern and north-eastern edge of Whitwell are visible (Photo 6). However, from the closest properties to the site, such as those on the southern edge of Whitwell (e.g. Franklin Avenue, Franklin Crescent, Thorpe Avenue, Sandy Lane and Sandy Close), their views are blocked by the permanent 10m high bund topped with a belt of 10m high deciduous planting located to the north of the existing quarry.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>North East Extension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whitwell FP20</td>
<td>120m to north-west</td>
<td>View southwards from the section of this path to the south-west of the eastern portal are of the western extraction face of the main quarry, which can be seen the dominating structures of the processing plant and of the industrial premises on Southfield Lane (Photo 5). The views of the extraction face form a small part of a much wider view towards Holbeck and the Welbeck Estate.</td>
<td>High</td>
</tr>
<tr>
<td>Southfield Lane</td>
<td>95m to east</td>
<td>From a short section of Southfield Lane between the access to the HCA land and the access road from Whitwell Works, there are views westwards of the rising ground forming the edge of the current quarry, topped with a young belt of trees, which effectively screen any views of the active extraction area. Vegetation along the former mineral railway line screen the lower parts of the rising landform (Photo 7). Views from this road are dominated by the gas extraction plant in the Whitwell Energy Park. Receptors in cars only have oblique views which are transient, therefore their sensitivity has been assessed as Low, whereas pedestrians have been assessed as having Medium sensitivity, as this route is less likely to be for recreational use.</td>
<td>Low to Medium</td>
</tr>
<tr>
<td>Belph (Hodthorpe &amp; Belph (H &amp; B) FP6 and A60)</td>
<td>1.5km to east</td>
<td>Long distance views are possible through the valley between the two tips along the line of Millash Lane of the rising land to this Extension beyond which can be seen the south facing cliff along the northern edge of the main quarry, though there are no views of active extraction (Photos 8a and 8b)</td>
<td>Low</td>
</tr>
<tr>
<td>Receptor Name</td>
<td>Relative Position to Extension</td>
<td>Description of Existing View(s)</td>
<td>Sensitivity</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>East Extension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crags Road</td>
<td>25m to east</td>
<td>From the overbridge carrying Crags Road over the underpass between the Belph Tip and the southern quarry it is possible to have views northwards of the shoulder of land forming the southern end of this Extension area (Photo 9). The west facing slope, to the east of this Extension area, rises from Crags Road and is covered with well-established vegetation (approximately 25m wide) thus providing a good screen from the section of Crags Road adjacent to this Extension area.</td>
<td>Low</td>
</tr>
<tr>
<td><strong>South East Extension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crags Road</td>
<td>45m to east</td>
<td>As for the East Extension, the northern extremity of this Extension area is visible looking south from the overbridge carrying Crags Road over the underpass between the Belph Tip and the southern quarry (Photo 10). The perimeter pine plantation (in conjunction with some acoustic bunds) screens most views into this part of the quarry.</td>
<td>Low</td>
</tr>
<tr>
<td>H &amp; B BW5</td>
<td>40m to east</td>
<td>From the eastern end of BW5 (Photo 11) there are some gaps in the perimeter plantation (Photo 12) which allow glimpses into the southern part of the main quarry, though these views can become more open in winter.</td>
<td>Medium</td>
</tr>
<tr>
<td>Whitwell FP20</td>
<td>1.1km to north</td>
<td>From the high ground above the railway tunnel, there are distant views towards the southern face of the main quarry and thus this vantage point could offer glimpses of this Extension though at over 1km distance (Photos 5).</td>
<td>High</td>
</tr>
<tr>
<td>H &amp; B BW10</td>
<td>75m to east</td>
<td>Looking north-east from this bridleway only the pine plantation on the perimeter of this Extension area is visible, screening any views into the main quarry (Photo 13).</td>
<td>Medium</td>
</tr>
</tbody>
</table>
6 THE PROPOSED DEVELOPMENT

6.1 Description of the Extension Proposals to the Quarry

6.1.1 The national importance of the mineral reserves at Whitwell Quarry are recognised in the D&DMLP (Ref 5), with the following description being taken from Appendix B (also refer to the extract at Appendix B):

*Production at the quarry is driven primarily by the demands for high specification industrial limestone, e.g. for refractory stone and for high iron content limestone for the steel industry. The quality of the refractory stone produced is very specialised indeed with significant exports to a number of countries. The quarry is currently one of only two sources of this particular quality stone in the UK. Unfortunately the operation itself is hampered by a number of factors both geological and physical with the effect that permitted reserves are sufficient to meet anticipated needs only until about mid-way through the plan period. In view of the specialist nature of the market and the shortage of alternative sources for the mineral, the plan puts forward proposals for future extensions to this site (in Chapter 12).*

6.1.2 The four extensions now proposed all fall with the proposed allocations shown on the D&DMLP Proposals Map: Inset 6, except for the North-East Extension, which would extend extraction up to the former mineral railway line to the east.

6.1.3 The extensions forming the subject of this application include:

- The North Extension (approximately 5.3ha, producing approximately 3Mt of stone);
- The North-East Extension (approximately 2.8ha, producing approximately 1.2Mt of stone);
- The East Extension (approximately 0.4ha, producing approximately 0.09Mt of stone); and
- The South-East Extension approximately 1.0ha, producing approximately 0.5Mt of stone).

6.1.4 These extensions are shown on Plan HDA 1 and all lie within the wider red line boundary of the current consents as well as this application, so that the restoration of the extension areas is included in the overall restoration of the whole quarry (and including the consented railway area). The extension areas south of the railway will be accessed from the current working area. The North Extension will be accessed by the current haul route over the railway in tunnel. At annual production rates of approximately 500,000 tonnes per annum (tpa) for kiln grade stone and 500,000 tpa for civils stone, it is anticipated that extraction operations at the quarry would be extended to 2033 for kiln grade stone and 2040 for civils grade stone. Final restoration of the site will take a further three years, to be completed by 2043. All excavated material will be processed through the on-site processing plant which will continue to operate up to 2040.

6.1.5 Within the **North Extension**, the northern section of the soil storage/screening bund (along the northern edge of the North Extension extraction boundary) will be retained to a height of 2.5 to 3m and extended to the west. The bund will also be extended at the eastern end in a southerly direction; refer to the Progressive Restoration Proposals End of Phase 1 to
The bund will remain until final restoration of the site (Phase 4). A 0.2ha area of screening bund within the extension area boundary will be removed to allow extraction of the mineral resource to the full extent of the extension area. The north-facing outer slope of the bund will be retained at its original profile (1(v) in 3(h)). The southern face of the screening bund will be removed while maintaining its screening qualities for visual receptors to the north. The three soil mounds to the south of the screening bund and the grassland surrounding them will be removed and their contents used for restoration elsewhere. The power cables to the north of the retained bund will be unaffected by the proposals. Ultimately, the majority of this extension area will form part of Whitwell Lake, contained to its north by cliff faces (retained at a maximum height of 15m between benches). The screening bund along the northern edge of the extension area will be retained, covered with grassland.

6.1.6 The proposals for the North East Extension are to extend the 80m AOD bench eastwards towards the eastern boundary of the extension, formed by the former mineral railway. The 70m AOD bench would also extend eastwards, retaining a working width to the 80m AOD bench (about 6m wide). The temporary topsoil storage bund along the edge of the current permitted north-east extension will need be removed to accommodate the extended area of extraction. This would be relocated to the 16m wide offset between the top of the embankment to the former mineral railway and the edge of the extension area for the construction of a maximum 3m high screening bund (3m above the edge of the mineral line embankment). However, the top of this bund would not be of a sufficient height to prevent views into the main quarry. Ultimately, this extension area will be restored to woodland and agriculture, though some of the cliff faces will be retained at reduced heights.

6.1.7 In the East Extension, the embankment of trees facing Crags Road will be retained. The western edge of scrub developing along the line of the former mineral line will be removed together with areas of rough grassland above the current cliff face of the main quarry. This extension area will be restored to woodland along its eastern edge to link with the woodland fronting Crags Road, and damp grassland on its western edge fronting onto an access track between the retained underpass and the agricultural grazing fields of the former southern lime disposal area.

6.1.8 The proposals for the South-East Extension would require the removal of peripheral acoustic/soil bunds and the western edge of plantation woodland to accommodate the extended area of extraction. The Creswell Crags woodland to the south of Crags Road, the most significant and extensive area of mature and diverse woodland adjacent to the quarry, would remain unaffected by the proposals. Likewise, the hedgerows that followed the original alignment of Tommy Moor Lane and were translocated along its realigned route, will also be unaffected by the proposals as will the trees located between the extraction
boundary and Crags Road. This extension area would be restored to form Creswell Lake, contained on its eastern side by cliff faces.

6.1.9 It is not planned to divert any footpaths as a result of the proposed extensions. As part of the consented development for the diversion of the railway, the route of the footpath which runs along the top of the tunnel (Whitwell FP20) will be realigned adjacent to the diverted railway.

6.2 Restoration Strategy

6.2.1 The whole site will be restored to nature conservation/amenity and agricultural after-uses, in a manner and to a design which will integrate the new landforms into the surrounding landscape, respect the environmental quality of the area and be in line with planning policy. The originally approved restoration plan was HDA Dwg 799-19_1D (Figure 27). This illustrative masterplan showed the realigned railway line to the south of its current alignment and this has been included as part of this application (Plan HDA 8). Restoration will be carried out progressively as explained in section 5 of the Environmental Statement which accompanies this application. Final restoration will commence once extraction operations have ceased (approximately 2040 and will be completed by 2043). The restoration strategy is to facilitate the creation of a landform at elevations lower than original ground levels. Much of the quarry would be restored to arable or grazing fields bound by proposed hedgerows. Blocks of woodland, such as the former Butcher’s Wood, would be replanted on higher ground on the western edge of the quarry, forming part of a continuous wooded belt between the existing woods at Creswell Crags in the south and Hangingbank Wood to the north-west. When the restoration of the main quarry is substantially complete, the western screening bund, facing onto Creswell, will have the material internal to the quarry (and its associated trees) removed, the material being used for restoration purposes. The external slopes of the western bund, together with the semi-mature trees on top, will be retained to their original crest height. The internal reduced levels of the bund will be replanted over the footprint of the bund.

6.2.2 A variety of wetland habitats would also be introduced. These would be based around three lakes, one occupying the eastern half of the northern quarry floor (Whitwell Lake – surface area of 9.3ha), one in the south-east corner of the main quarry (Creswell Lake – surface area of 1ha), and these two would be linked by a stream, and the third permitted as part of the consented eastern extension (Belph Lake – surface area of 24ha). The design water level of Whitwell Lake will be 80.5m AOD, as regulated by the invert level of the proposed culvert beneath the railway. The design water level of Creswell Lake would be 64m AOD and will be regulated by sluices, with overflow water being gravity-fed to the proposed Belph Lake (design water level 61m to 62m AOD). The levels around the proposed Creswell Lake will need to be up to 1m above the final ground water levels. Both
lakes in the main quarry would be created with shallow side slopes, providing shelves for
the establishment of marginal and emergent vegetation. Some of the crag and scree slopes
created by extraction will be retained as landscape (and geological) features within the site.

6.2.3 It is not proposed to deviate markedly from the original or currently approved restoration
scheme, however the positions of the two interconnected lakes in the current quarry have
changed, and the Whitwell Lake would be larger than shown in the currently approved
scheme. The Creswell Lake has been reduced in size and has been relocated from the
south-west corner of the site to the south-east corner compared with the previous schemes.
It is the County’s aspiration that water-based restoration features, such as lakes, are not
prominent features of the scheme, as it considers that lakes are not characteristic of this
landscape. However, this aspiration needs to be balanced against minimising the
quantities of restoration materials that would need to be imported to the site to reduce the
size of wetland features. The planting proposals have been altered to suit the revised
restoration scheme.

6.2.4 The restoration proposals include retention of ground modelling and landscape planting
along the quarry’s western margins, to reduce the visibility of the resultant extraction and
assimilate it into the surrounding landscape. The potentially most appropriate and valuable
habitats will be calcareous and marshy grasslands and marginal/emergent planting,
merging into wet woodland, areas of scrub and species-rich hedgerows and associated
network of interlinked ditches.

7 LANDSCAPE AND VISUAL ASSESSMENT OF PROPOSED EXTENSION AREAS
7.1 Introduction
7.1.1 The landscape impacts resulting from the proposed extension areas have been subdivided
into impacts on existing landscape features on and around the site, and impacts on local
landscape character. Cumulatively, impacts on existing landscape features, together with
the effects of new features or planting relate strongly to the residual impact on landscape
character. Section 7.2 below summarises the likely impact on landscape features and sets
these in the context of local landscape character and landscape amenity (Section 7.3). The
visual assessment (Section 7.4) addresses the extent and character of views of the
proposed extension areas of the quarry during extraction and compares this with the
restoration scheme in place, 10 years after completion of the planting.

7.2 Landscape Assessment - Features
7.2.1 The existing landscape features of each of the proposed extension areas are described in
Section 3.4 (Table 1) and those features that are to be retained or are proposed within each
extension area are described in Section 6. Existing perimeter features, such as woodland
belts and hedgerows have been assessed as having Medium sensitivity to change or
removal. The proposals retain the majority of these boundary features and provide adequate stand-offs to protect their long term viability. Existing vegetation, for example, the pine plantation to the east of the South East Extension, will be further strengthened with additional understorey planting, in keeping with local landscape character, using locally common, evergreen, native species such as holly and yew.

7.2.2 The principal area of tree loss resulting from the proposed extensions would be from the North East Extension, where a belt of trees, that was planted 10 years ago, will be removed. Given its young age, this planting has only attained a height of about 4m, and in places has significant gaps in it, leading to an open habit. As such its sensitivity to change has been assessed as Low. The magnitude of change with the loss of this tree belt is High, therefore the significance of effect is assessed as Moderate to Minor Adverse. To mitigate the loss of this landscape feature, it is proposed before extraction commences, to construct a screening bund (to a maximum height of 3m) upon which would be planted a new hedgerow along the eastern boundary of the extension to augment the existing planting along the former mineral railway line. Although it would take many years for the newly planted hedge to reach the stature of the existing planting prior to its removal, the impact of its loss would be reduced to Negligible.

7.2.3 The only other loss of existing vegetation features would occur from the South East Extension. To accommodate this extended area of extraction, 3,000m² in total of existing mature, predominantly pine woodland would be removed. The two sections of plantation (separated by the former alignment of Tommy Moor Lane), though reaching maturity, currently lack diversity and have an open structure, thus its sensitivity to change has been assessed as Medium. To mitigate these losses, the retained woodland (outside the boundaries of the extension area) would be under-planted with evergreen species, and coppicing introduced to suitable deciduous species within the plantation, though these species are relatively infrequent. This management work should be carried out prior to extraction within the East and South East Extensions to maximise the screening benefits of this work on nearby visual receptors. The loss of woodland should be set against the gains in woodland planting as part of the overall quarry restoration strategy and the benefits of additional supplies of a nationally important limestone resource.

7.2.4 The loss of 6.75ha in total of rough grassland (2.29ha from soil mounds and 4.46ha from elsewhere) would result from extraction in the extension areas. However, this is a relatively small area compared to the proposed grassland habitats to be provided as part of the restoration strategy for Whitwell Quarry. Restoration to a variety of after uses would include extensive areas of grazing and arable fields and woodland, and three lakes, that would increase the ecological potential of the site, providing habitats for invertebrates and small mammals, and nesting habitat for birds.
7.2.5 In addition to the loss of landscape features from the extraction areas, trees will be removed from the inner face of the western bund, though the footprint of the bunds will be replanted once the material has been removed. The extensive proposals for areas of woodland and hedgerow planting, as part of the restoration scheme, will substantially off-set the losses of existing landscape features described above. The assessment of effects upon landscape features is summarised in Table 4 below:
Table 4: Landscape Features Assessment

<table>
<thead>
<tr>
<th>Feature</th>
<th>Sensitivity</th>
<th>Description of Effect of Proposals</th>
<th>Magnitude of Effect</th>
<th>Impact Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td>North Extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1 Rough Grassland</td>
<td>Low</td>
<td>During extraction, 4.2ha of grass in this extension area will be lost (1.8ha from the removed soil mounds and 2.4ha from elsewhere). At restoration, areas of grassland will be created.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Soil Mounds</td>
<td>Low</td>
<td>During extraction, the mounds will be relocated to other locations within the existing quarry workings or directly placed for use in the restoration phase.</td>
<td>Low Adverse</td>
<td>Very Low Beneficial</td>
</tr>
<tr>
<td>Quarry</td>
<td>Very Low</td>
<td>During excavation, the extension area will be subsumed into the rest of the quarry. At restoration, the southern part of the extension area will form the northern edge of Whitwell Lake, separated from the retained northern screening bund by retained cliff faces.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>W1 Dry Stone Wall</td>
<td>Low</td>
<td>During extraction, all 30m of the wall will be lost due to removal of the mineral resource in this extension. The stone could be used to patch and make good other walls retained in the vicinity of the quarry at restoration (or sold off-site).</td>
<td>No Change</td>
<td>No Change</td>
</tr>
<tr>
<td>H1 Hedgerow</td>
<td>Low</td>
<td>This hedgerow would be unaffected during the extraction period or at restoration.</td>
<td>No Change</td>
<td>No Change</td>
</tr>
<tr>
<td>North East Extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1 Plantation</td>
<td>Low</td>
<td>During extraction, all 1.1ha of recent planting in the extension area will be lost (though 0.47ha outside the extraction area boundary will be retained). Before extraction, a screening bund topped with a hedgerow would be constructed/planted on the edge of the extension area to augment the retained vegetation on the embankments of the disused mineral line. In addition, upon restoration woodland planting would form a continuous belt along the eastern boundary of the quarry which would more than compensate for this initial loss.</td>
<td>High Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>G2 Rough Grassland</td>
<td>Low</td>
<td>During extraction, all 1.3ha of grass in the site will be lost (none retained). At restoration, areas of grassland will be created.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Quarry</td>
<td>Very Low</td>
<td>During excavation, the extension area will be subsumed into the rest of the quarry. At restoration, the lower levels of this extension area will be put back to agriculture and the higher contours to woodland.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Disused Mineral Railway Line</td>
<td>Medium</td>
<td>The vegetation lining the embankments of the former railway would be unaffected during the extraction period or at restoration. (The landform around the mineral line itself cannot be altered).</td>
<td>No Change</td>
<td>No Change</td>
</tr>
<tr>
<td>East Extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G3 Rough Grassland</td>
<td>Low</td>
<td>During extraction, all 0.2ha of grass in the extension area will be lost (none retained). At restoration, areas of grassland will be created.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>S1 Scrub</td>
<td>Low</td>
<td>During extraction, all 0.04ha of scrub in the site will be lost (scrub to east of extension area to be retained). At restoration, areas of scrub will be created.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Feature</td>
<td>Sensitivity</td>
<td>Description of Effect of Proposals</td>
<td>Magnitude of Effect</td>
<td>Impact Significance</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>------------------------------------</td>
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<td>---------------------</td>
</tr>
<tr>
<td>Quarry</td>
<td>Very Low</td>
<td>During excavation, the extension area will be subsumed into the rest of the quarry. At restoration, this part of the quarry will be put back to agriculture and woodland.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>P2 Plantation</td>
<td>Medium</td>
<td>The semi-mature trees on the embankment rising from Crags Road would be unaffected during the extraction period or at restoration</td>
<td>No Change</td>
<td>No Change</td>
</tr>
<tr>
<td><strong>South East Extension</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil Mounds</td>
<td>Low</td>
<td>During extraction, the mounds will be relocated to other locations within the existing quarry workings or directly placed for use in the restoration phase.</td>
<td>Low Adverse</td>
<td>Very Low Beneficial</td>
</tr>
<tr>
<td>Quarry</td>
<td>Very Low</td>
<td>During excavation, the extension area will be subsumed into the rest of the quarry. At restoration, this part of the quarry will form part of Creswell Lake bound on its eastern edge by cliff faces, and with marginal areas of marshy grassland.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>G4 Rough Grassland</td>
<td>Low</td>
<td>During extraction, all 0.21ha of grass in this extension area will be lost (none retained). At restoration, areas of grassland will be created.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>P3 Wood</td>
<td>Medium</td>
<td>During extraction, 1,310m² of mature, predominantly pine woodland in this extension area will be lost (though 0.51ha immediately to the east of the extension area boundary will be retained). At restoration, the retained woodland (outside the boundaries of the extension area) would be underplanted with evergreen species, and coppicing introduced to suitable deciduous species with the plantation, though these species are relatively infrequent. In addition, other areas of woodland planting within the restoration scheme for the entire quarry would more than compensate for this loss.</td>
<td>High Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>P4 Wood</td>
<td>Medium</td>
<td>During extraction, 1,823m² of the eastern end of a semi-mature, predominantly deciduous woodland belt with pine, in this extension area will be lost. The remaining 1.4ha of this belt of woodland would be retained, and between the boundary of the extension area and the realigned Tommy Moor Lane it would be up to 23m wide. The restoration scheme for the whole quarry would include other areas of woodland planting that would more than compensate for this loss.</td>
<td>Medium Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Bridleway</td>
<td>Medium</td>
<td>Tommy Moor Lane was realigned to accommodate the permitted southern quarry area, and would not be affected by the proposed extraction from this extension area. Extraction in this extension area would be offset from the bridleway by 23m and the intervening woodland reinforced with additional under-storey planting.</td>
<td>No Change</td>
<td>No Change</td>
</tr>
</tbody>
</table>
7.3 Landscape Assessment - Character

7.3.1 Extraction of limestone from the extension areas is likely to have an impact on the character of the area’s landscape, but these impacts will not be significant. The size of the extraction areas when compared with the overall size of the quarry is relatively small. The period of extraction will be relatively short compared to the length of time the quarry has been operating. Impacts on landscape character will therefore be at their greatest during extraction and during the creation/planting of the restoration scheme, however these will be temporary. Over time, the quarry would be restored to land uses similar to those that occupied the area of the quarry before its extraction, though at reduced elevations. The proposed grazing and arable fields would not look out of place in the Limestone Farmlands. Remnants of crags and scree slopes would also be appropriate, being in character with the Limestone Gorges character area and the designation of the main quarry as a RIGS.

7.3.2 Given the lack of land adjacent to the proposed extensions to accommodate temporary bunding or areas of advanced planting, it is likely that during extraction, the workings will be easily perceived in the landscape. The restoration scheme would not bring levels up to original ground levels and this initially will be a marked change in the landscape character of the site, however, this change would be similar to the currently approved proposals; the long term impact of the restoration scheme on the general character of the local landscape would be limited and in many respects would constitute a beneficial effect on landscape character.
## Table 5: Landscape Character Assessment

<table>
<thead>
<tr>
<th>LLCA</th>
<th>Sensitivity</th>
<th>Description of Effect of Proposals</th>
<th>Magnitude of Effect</th>
<th>Impact Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td>Limestone and Coal Workings</td>
<td>Very Low</td>
<td>The nature of the proposals are extensions to an existing quarry, therefore they would be in character with this LLCA. The removal of limestone will result in the loss of current land uses and thus some local features. At restoration, the quarry will be fully restored to reflect the adjacent character areas of Undulating Farmland and Vale Edge Farmland (with some elements from Creswell Crags). Restoration will remove the Limestone Workings LLCA.</td>
<td>Medium Adverse</td>
<td>Medium Beneficial</td>
</tr>
<tr>
<td>Undulating Farmland</td>
<td>Medium</td>
<td>During excavation, the removal of limestone, which would occur in close proximity to the existing quarry, would have no effect on this LLCA. The restoration of the quarry has been designed to most closely reflect this LLCA, reinstating and extending its characteristic features southwards throughout the former quarry.</td>
<td>Very Low Adverse</td>
<td>Medium Beneficial</td>
</tr>
<tr>
<td>Enclosed Undulating Farmland</td>
<td>Medium</td>
<td>The proposals would have no effect on this LLCA.</td>
<td>No Change</td>
<td>No Change</td>
</tr>
<tr>
<td>Wollen Valley Farmland</td>
<td>Medium</td>
<td>During excavation, the removal of limestone, which would occur in close proximity to the existing quarry, would have no effect on this LLCA. The restoration of the quarry will reinstate characteristic features of this LLCA.</td>
<td>No Change</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Vale Edge Farmland</td>
<td>Low</td>
<td>During excavation, the removal of limestone, which would occur in close proximity to the existing quarry, would have minimal effect on this adjacent LLCA. The restoration of the quarry will reinstate characteristic features of this LLCA.</td>
<td>Very Low Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Vale Farmland</td>
<td>Low</td>
<td>The proposals would have no effect on this LLCA.</td>
<td>No Change</td>
<td>No Change</td>
</tr>
<tr>
<td>Urban Areas</td>
<td>Low</td>
<td>During excavation, the removal of limestone, which would occur in close proximity to the existing quarry, would have no effect on this LLCA. The restoration of the quarry will benefit views from this LLCA.</td>
<td>Very Low Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Welbeck Estate</td>
<td>High</td>
<td>During excavation, the removal of limestone, which would occur in close proximity to the existing quarry, would have no effect on this LLCA. The restoration of the quarry will reinstate characteristic features of this LLCA.</td>
<td>No Change</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Creswell Crags</td>
<td>Very High</td>
<td>During excavation, the proposals would have no effect on this LLCA. At restoration, the scheme has been designed to incorporate elements of this LLCA (particularly retained crags and screes).</td>
<td>No Change</td>
<td>Low Beneficial</td>
</tr>
</tbody>
</table>
7.4 Visual Assessment

7.4.1 The visibility into the existing quarry is limited due to a combination of rising ground around the rim of the quarry and belts of existing vegetation. The baseline assessment identified existing views into Whitwell Quarry from Crags Road and Southfield Lane and further afield from the A60, and from several paths (including Footpaths Whitwell 73 and 20, which lie at the bottom of the planted bunds to the north of the boundary of the North Extension area), though only from a restricted number of distant properties in Whitwell and Creswell (consisting of views of the high ground over the railway tunnel and of the perimeter woodland belts). None of the identified visual receptors were assessed as having the potential to experience a substantial visual impact. To minimise visual impacts on some identified receptors and to avoid significant impact on the adjacent local landscape, advanced planting and/or land raising is proposed, particularly along the eastern edge of the North East Extension (through the introduction of a screening bund topped with a hedgerow) and adjacent to the South East Extension, where changes in vegetation management are proposed, such as coppicing.

7.4.2 Table 6 below sets out the visual assessment for those receptors with a potential view of the extension areas as described in Section 5. The following paragraphs summarise the visual impact arising during the extraction of limestone (at the worst case scenario) and then 10 years after completion of the proposed restoration.

7.4.3 Views from public footpaths, roads and railways. Users of footpaths closest to the extension areas are likely to have views of extraction activities in those extension areas, but views will be restricted to specific, limited lengths of these paths as described below.

7.4.4 North Extension – The bund lying to the south of Footpaths Whitwell 73 and 20 will be retained, with its north-facing outer slope unaltered from its original profile. The bund will be retained at 2.5 to 3m high, thus there should be no change in the views experienced by users of these footpaths, with no views from the valley bottom footpath into the northern quarry or the North Extension. Where the eastern end of Footpath 20 joins the continuation of this path over the railway tunnel, there would be views into the North Extension. These views would be reduced by the retention of an existing hedge lying outside the extension area boundary, on its eastern flank. Views from the footpath (Whitwell FP20 and Whitwell 74) above the tunnel will not be greatly different from those currently experienced with open views into parts of both the northern and southern quarry and of the North Extension and North East Extension. Noise attenuation bunds, currently wrapping around the western end of the permitted north-west extension, will be retained for the duration of working the North Extension, which will assist in reducing views into the extension area from Creswell village, Peter More Hill and from footpaths (Whitwell FP18 and Whitwell FP75) to the west of the quarry. It was envisaged when these bunds were constructed (they have been in
place since 2002/2003) that they would be temporary and the materials within them would be used in the restoration of the main quarry, therefore tree planting on the bunds has been omitted from the proposed planting scheme. It is proposed upon restoration that the western end of the bunds will be removed, but the section along the northern boundary of the North Extension, closest to Whitwell, will be retained.

7.4.5 **North East Extension** – A cross section from Southfield Lane extending westwards (see Dwg LT/WTE/12-15/19094 included as Appendix G) demonstrates that removal of the rising land within the North East Extension would open up views into the existing quarry, however this would not be of the Extension Area or the western edge of the quarry, but would be of the intermediate higher ground within the quarry (up to 106.7m AOD) which takes the access track between the northern quarry and the processing plant. Even with the proposed restoration contours in place, it is unlikely that the northern extent of the extraction face on the western edge of the quarry would become exposed from Southfield Lane as this intervening high ground would be planted to form the restored Butcher’s Wood. Limited sections of the southern extent of the extraction face on the western edge of the quarry would become exposed from limited viewpoints on Southfield Lane as the screening influence of the higher ground in the north-west corner of the main quarry decreases towards the south.

7.4.6 It is envisaged that the areas to the east of the haul road and to the east of the western perimeter bunds will be restored at an earlier phase so that the haul route is afforded some screening and the later removal of the western perimeter bunds do not expose views into the quarry from Creswell. This early restoration work will also mitigate potential views from Southfield Lane. The land between the disused mineral railway line and Southfield Lane is allocated for industrial uses, with the Alkane plant already in place. Any future development of this area (though outside the control of Tarmac) may also assist in screening views of the North East Extension.

7.4.7 **East Extension** – Users of Crags Road would only have very limited views of the southern end of this extension area. It is proposed that the existing vegetation on the sloping ground rising from Crags Road to the north of the over-bridge would be retained with an adequate standoff to prevent dewatering of the retained trees. Extraction from the area to the west of the retained vegetation would therefore be well screened.

7.4.8 **South East Extension** – This area of extraction would be visible from the Crags Road over-bridge, but only extraction from its northern shoulder would be visible. Retention of the existing boundary plantation, consisting predominantly of pine, is proposed, with adequate offsets to maintain the current water regime to these retained trees. Management of this retained belt of trees is also proposed, with the introduction of understorey planting,
including holly and yew which are currently present in woodland in the area, and the
coppicing of deciduous species to provide more branching at lower levels, though such
species are infrequent in the mix.

7.4.9 Views from properties. Those properties in closest proximity to the site include those
along Franklin Road to the north of the quarry, Bridge Close to the north-east on the south-
eastern edge of Whitwell, at Hennymoor Farm to the south-east of the quarry and Craggs
Lodge to the south of the quarry. None of these properties, despite their close proximity to
the quarry, have views into the active quarry. In particular, there are no views from those
properties within Whitwell immediately to the north of the quarry due to the intervening
existing permanent landraising and extensive tree planting. Some distant properties on
rising ground on the eastern edge of Whitwell have views of the high ground over the
railway tunnel, but they would have no views of the four proposed extension areas.

7.4.10 Any views from the identified visual receptors, footpath and road users and properties, will
decrease as the restoration scheme for the former quarry matures. It is unlikely that the
proposed lakes within the quarry will be visible from any of the nearby footpaths and roads,
particularly given their lower level in relation to the surrounding landform, and the
surrounding vegetation. It is anticipated that the restoration scheme, as seen from the
surrounding landscape, will be consistent with the local landscape character and will have
no adverse impact on the identified visual receptors or the visual amenity of the local
landscape. Any residual impacts on visual amenity arising from the restoration proposals
would be negligible.
Table 6: Visual Assessment

<table>
<thead>
<tr>
<th>Receptor Name (Plan HDA 9)</th>
<th>Sensitivity</th>
<th>Description of View Pre and Post Restoration</th>
<th>Magnitude of Effect</th>
<th>Impact Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td>North Extension</td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td>Whitwell FP20, FP73 &amp; FP18 - Northern Bund</td>
<td>High</td>
<td>Views of extraction within this Extension Area from these footpaths lying to the north of the quarry will be blocked by the northern screening bund. The north facing slope of the screening bund will remain unaltered therefore views for footpath users will remain the same as those currently experienced. The bund will be retained within the restoration scheme as grassland.</td>
<td>No Change</td>
<td>No Change</td>
</tr>
<tr>
<td>Whitwell FP20</td>
<td>High</td>
<td>Current views of the northern extraction face of the northern quarry will still be experienced by walkers looking north from this elevated viewpoint. Footpath users will have views of additional extraction activity in the North Extension, but this will not look greatly different from what they see currently. The cliff faces created will be retained within the restoration scheme above Whitwell Lake.</td>
<td>Low Adverse</td>
<td>Low Beneficial</td>
</tr>
<tr>
<td>Whitwell</td>
<td>Medium</td>
<td>Distant properties on the high ground on the eastern and north-eastern edge of Whitwell would continue to have views of the high ground above the railway tunnel, but would not have views into the active extraction area of this extension.</td>
<td>No Change</td>
<td>No Change</td>
</tr>
<tr>
<td>North East Extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whitwell FP20</td>
<td>High</td>
<td>The current views of the western extraction face of the main quarry will not markedly change though they would include views of the additional extraction in this Extension Area. Views from this elevated viewpoint would change for the better with the restoration scheme in place.</td>
<td>Low Adverse</td>
<td>Medium Beneficial</td>
</tr>
<tr>
<td>Southfield Lane</td>
<td>Medium to Low</td>
<td>Views into the existing quarry would be opened up with the removal of the rising ground forming this Extension Area, but views of extraction within the Extension Area itself would not be possible. Augmenting the existing planting along the top of the disused mineral railway line with a screening bund topped with a hedgerow would provide some low level screening, but high ground within the quarry would still be visible.</td>
<td>Medium Adverse</td>
<td>Low Adverse</td>
</tr>
<tr>
<td>Belph (Hodthorpe &amp; Belph FP6 and A60)</td>
<td>Low</td>
<td>The removal of the rising ground on the eastern edge of this extension area will open up more extensive, though distant views of the south facing cliff along the northern edge of the main southern quarry. There would not, however, be any views of extraction within the extension area as this would be below the levels of the retained eastern edge.</td>
<td>Low Adverse</td>
<td>Low Adverse</td>
</tr>
<tr>
<td>Receptor Name</td>
<td>Sensitivity</td>
<td>Description of View Pre and Post Restoration</td>
<td>Magnitude of Effect</td>
<td>Impact Significance</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td>East Extension</td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td>Crags Road</td>
<td>Low</td>
<td>Views from the gap created by the overbridge between the two quarries would be of extraction from the southern end of this area. This transient view would be mitigated by the retention of the trees rising from Crags Road, but this would not prevent all views. Planting of the eastern edge of the southern lime disposal area will prevent more extensive views into the restored quarry.</td>
<td>Low Beneficial</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td>Medium Adverse</td>
<td>Negligible</td>
</tr>
<tr>
<td>South East Extension</td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td>Crags Road</td>
<td>Low</td>
<td>Views from the gap created by the overbridge between the two quarries would be of extraction from the northern shoulder of this area. This transient view would be mitigated by the retention and management of the existing perimeter plantation. Planting of the eastern edge of the southern lime disposal area will prevent more extensive views into the restored quarry.</td>
<td>Low Beneficial</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td>Medium Adverse</td>
<td>Negligible</td>
</tr>
<tr>
<td>H &amp; B BW5</td>
<td>Medium</td>
<td>It will take time for the proposed under-storey planting and coppice management of the perimeter plantation to be effective to make this belt of trees more visually impenetrable, but if carried out in advance of extraction, this would maximise the benefits of these works. Any current glimpsed views would therefore be screened preventing views of the extended area of extraction. Continued management of the perimeter belts should ensure that views into restored quarry are not possible.</td>
<td>Low Beneficial</td>
<td>Minor Beneficial</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td>Low Beneficial</td>
<td>Negligible</td>
</tr>
<tr>
<td>Whitwell FP20</td>
<td>High</td>
<td>The distant, glimpsed views (over 1km away) from the high ground above the railway tunnel of the southern face of the main quarry will also be possible of the extended area of extraction in this Extension Area. These views would form only a small part of a much larger panoramic view from this elevated viewpoint which also includes views of the processing plant. The north facing cliffs will be retained within the restoration scheme, but woodland planting within the restored quarry would block some of these views.</td>
<td>Low Adverse</td>
<td>Substantial/Moderate Beneficial</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td>Medium Beneficial</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>H &amp; B BW10</td>
<td>Medium</td>
<td>A minimum depth of 23m of the pine plantation on the perimeter of this Extension area will be retained to ensure that its screening qualities are maintained. The current lack of views into the quarry will not be changed.</td>
<td>No Change</td>
<td>Negligible</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extraction</td>
<td>Restoration</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td>Low Beneficial</td>
<td>Minor Beneficial</td>
</tr>
</tbody>
</table>
8 ASSESSMENT AGAINST LANDSCAPE PLANNING POLICY

8.1 National Planning Policy
8.1.1 The assessment has identified above that the long-term landform and restoration scheme for Whitwell Quarry will ‘respond to local character and history, and reflect the identity of local surroundings and materials’, as required by the Framework (paragraph 2.1.2 above). The restoration proposals, to grazing/arable fields and lakes surrounded by naturalistic vegetation, have been designed to be in keeping with the local landscape character and would be visually attractive, as well as having benefits for wildlife.

8.2 Regional Policy
8.2.1 The proposals would be consistent with Policy MP1 of the current D&DMLP (Ref 5), particularly as they would have regard to “the effect on the character and quality of the landscape including the effects on trees, hedgerows, woodland and topographical features”. Whitwell Quarry is a RIGS and partly designated as a non-statutory Local Wildlife Site but none of the proposed extension areas coincide with the extent of the LWS so would not “cause significant disturbance to (other) sites of importance for nature conservation including local nature reserves, county wildlife sites, regionally important geological sites and the habitats of locally rare or endangered species” and thus the proposals would not be contrary to Policy MP4 (part 3) of the current D&DMLP. In addition, the proposals have taken into consideration the South Extension Area’s proximity to the Creswell Crags SSSI, by under-planting the existing woodland to reinforce the buffer between the quarry and this nationally protected site.

8.2.2 In line with Policy MP6, this application is accompanied by “a field evaluation and impact assessment” as presented in the Planning Statement and Environmental Statement. The application is also accompanied by an Illustrative Restoration Proposals Plan (Plan HDA 8) to help satisfy Policy MP10 on Reclamation and After-Use.

8.3 Local Policy
8.3.1 The proposals would be consistent with Bolsover District Local Plan (Ref 6) Policy ENV5 and Policy ENV6 in that they “retain, wherever possible, habitats which are locally important for biodiversity including woodland, trees, hedgerows, wetlands, watercourses and geological features”, (Policy ENV5(1)) and would not “result in material harm to any Sites of Special Scientific Interest; or significant adverse impact on Sites of Importance for Nature Conservation or Local Nature Reserves” (Policy ENV6(1) and (2)). Policy GEN2 relates to the ‘Impact of Development on the Environment’, and states that regard will be given to “the extent of any adverse effect on the natural beauty and amenity of the land, and of features of the landscape which are of major importance for wild flora and fauna”. The assessment has demonstrated that any perceived harm to the character of the area arising
from the extraction of limestone in the extension areas would be short-lived and in the long-
term, the restoration scheme would be of an overall benefit to landscape character.

9 SUMMARY AND CONCLUSIONS

9.1 The potential landscape and visual impacts associated with the consented quarry have
been reported in the past as being localised and temporary, and although the addition of
the four extensions will increase the geographical extent of those potential impacts, it is
unlikely that the impacts will increase by a significant amount. Potentially significant
landscape impacts relate to vegetation removal, particularly the loss of the vegetation
forming the western edge of the North East Extension. Other significant landscape impacts
arise from changes to the original landform and drainage. The landform would not be
reinstated to its original levels, but to levels up to 30m lower than surrounding ground levels.
Although such depressions in the landscape (with remnant crags and scree slopes) are not
commonplace in the vicinity of the site, except those occurring in the naturally created
gorges of Creswell Crags, Markland Grips and Hollinhill Grips, they would not look out of
place in the Limestone Farmlands, where exposed rock formations form an important
component of the landscape. Some losses of trees and shrubs could not be avoided (from
the North East and South East Extensions), as described, but these losses would not
constitute significant impacts on the landscape resource of the area, particularly given the
extent of the proposed restoration scheme. Overall, there would be low levels of landscape
impact on the site landscape features, its landscape character and the amenity of the local
landscape.

9.2 Potential views of the extraction of limestone from the four extension areas would be limited
and with the retention of mounding and the use of under-storey planting, would not result
in a significant impact on visual amenity. Planting proposed as part of the restoration
scheme would be consistent with the local landscape character. Whilst the proposals would
enhance the containment of the site, they would not affect the general visual amenity of the
local landscape.

9.3 Following restoration, the character of the site would be restored to a combination of arable
and grazing fields with areas of amenity grassland on low lying ground. In the low lying
areas there will be an emphasis on nature conservation associated with the watercourse
and lakes with wetland habitats provided together with increased public access. The
ecological potential of the site will be enhanced, with the residual visual impact being
negligible. In summary, the potential visual impact of the proposed extensions is low.
10 REFERENCES

Ref 1 - Countryside Agency (now Natural England)/Scottish Natural Heritage (April 2002), ‘Landscape Character Assessment – Guidance for England and Scotland’

Ref 2 - The Landscape Institute with the Institute of Environmental Management and Assessment (2002 and 2013), ‘Guidelines for Landscape and Visual Impact Assessment’ (second and third editions)

Ref 3 - Department for Communities and Local Government (March 2012), ‘National Planning Policy Framework’

Ref 4 - Department for Communities and Local Government (web-based resource launched March 2014), ‘National Planning Practice Guidance’

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Ref 10 - Derbyshire County Council (2003) ‘The Landscape Character of Derbyshire’
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Project Reference: 2093.16
Document Title: Landscape and Visual Impact Assessment for the Extraction of Limestone from Extension Areas at Whitwell Quarry, Derbyshire
Commissioning Party: Tarmac

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Personnel

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<tbody>
<tr>
<td>Christine Marsh</td>
<td>Associate Landscape Architect</td>
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<td>Checked by</td>
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<td>Approved for issue</td>
<td>Brian Duckett</td>
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