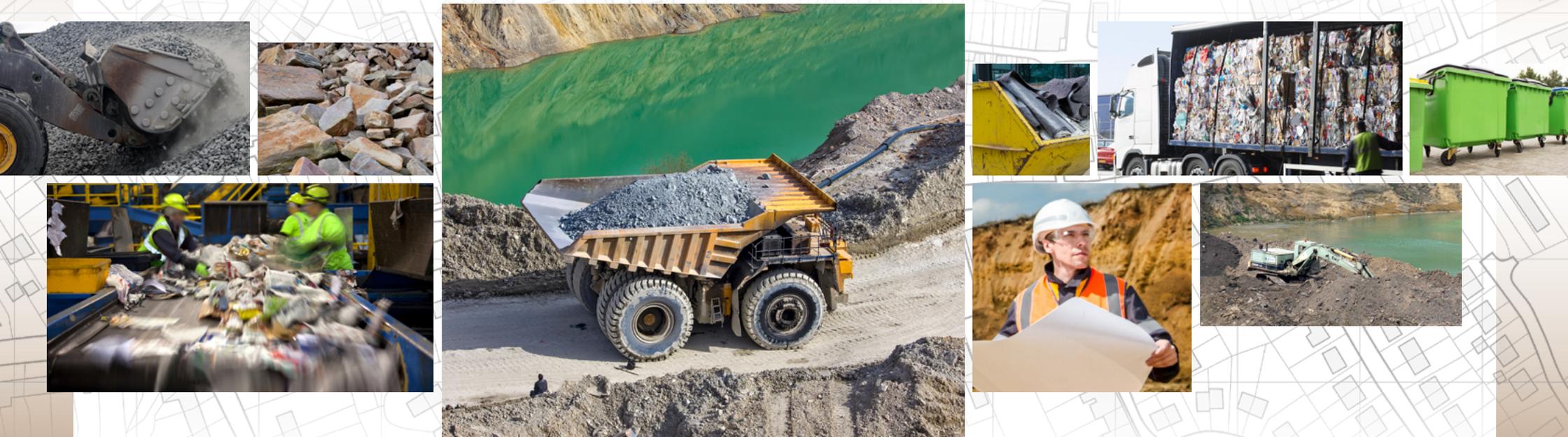


County Durham Minerals and Waste Policies and Allocations Document

Updated Assessment of potential Minerals and Waste sites in County Durham

November 2022



Contents

Introduction	3
The County Durham Plan and the Minerals and Waste Policies and Allocations Document.....	3
Relevant Guidance set out within the National Planning Policy Framework and the Planning Practice Guide.....	3
Need for the Mineral and Waste Development	6
Operator Proposed Sites.....	6
Table 1: Overview of Sites Proposed by Operators/Consultants for minerals extraction.....	7
Table 2: Overview of Sites Proposed by Operators/Consultants for waste development.....	10
Site Appraisal Tables	12
Table 3: Site M1 - Witch Hill Quarry - Proposed Eastern Extension.....	12
Table 4 – Site M2 - Raisby Quarry - Proposed Eastern Extension.....	23
Table 5: Site M3 - Crime Rigg Quarry - Northern Extension	35
Table 6: Site W1 - Crime Rigg Quarry Waste Infilling.....	47
Table 7: Site M4 - Boldron Cross Lanes Proposed New Site	60
Table 8: Site M5 - Low Harperley Proposed Extension.....	72
Table 9: Site M6 Thrislington West Quarry - Allocation of additional Permian Sand.....	82
Table 10: Site M8/W2 Cold Knuckle Magnesian Limestone and inert infill.....	93
Table 11: Site M9/W3 Old Quarrington Quarry (Quarrington North).....	106
Table 12: Site M10 Hulands Quarry Eastern Extension	131
Table 13: Site M11/W4 Eldon Quarry Minerals / Waste	143
Appendix A - Landscape and Visual Impact Appraisal	155
Site M1: Witch Hill Quarry Eastern Extension.....	155

Site M2: Raisby Quarry - Proposed Eastern Extension	158
Site M3: Crime Rig Quarry Proposed Northern Extension.....	161
Site W1: Crime Rigg Quarry Waste Infilling	164
Site M4: Boldron Cross Lanes Proposed New Site	167
Site M5: Low Harperley Proposed Extension.....	171
Site M6: Thrislington West Quarry - Allocation of additional Permian sand reserves	174
Site M7: Thrislington Quarry Magnesian Limestone - Consideration of the potential for the current restrictive sales conditions for limestone at Thrislington East and West to be relaxed	176
See Summary of Consultation Regulation 18 Notice of intent to prepare a Development Plan Document and Minerals and Waste Call for Sites (September 2021).	176
Site M8/W2: Cold Knuckle Magnesian Limestone and inert infill	176
Site M9/W3: Old Quarrington Quarry (Quarrington North). The 35-hectare site as proposed by Tarmac	178
Site M9/W3: Old Quarrington Quarry (Quarrington North). The 24-hectare site as considered further by the Council	181
Site M10: Hulands Quarry Eastern Extension	185
Site M11: Eldon Minerals.....	188
Site: W4: Eldon Waste.....	192

Introduction

- 1.1 This is an updated version of the site assessment report which was prepared to accompany the Draft Minerals & Waste Policies and Allocations Document (M&WDPD) which was subject to consultation between 24 September 2021 and 5 November 2021. It has been updated to accompany the Publication Draft County Durham M&WDPD which is now subject to consultation for six weeks between Monday 28 November 2022 and Friday 13 January 2023. This report is not a consultation report. Any comments in relation to any of the site allocations in the Publication Draft M&WDPD or against the non-allocation of a site should be submitted in response to the Publication Draft M&WDPD. Details of how to comment upon the Publication Draft M&WDPD are set out in Chapter 1 of the Publication Draft M&WDPD.

The County Durham Plan and the Minerals and Waste Policies and Allocations Document

- 1.2 Once adopted the policies of the M&WDPD will complement the strategic minerals and waste policies of the County Durham Plan. It will set out specific policies for a number of minerals not addressed by the County Durham Plan. It will contain detailed development management policies for minerals and waste which will be used with the strategic minerals and waste policies and other relevant policies set out within the County Durham Plan to determine planning applications for minerals and waste development. If necessary, it will also allocate further sites for mineral working or waste development which are required to meet longer term need over the life of the County Durham Plan.
- 1.3 The preparation of the M&WDPD is a commitment that the Council made during the preparation of the County Durham Plan. Further information on the M&WDPD is set out in the Publication Draft M&WDPD. Updated information on the timescale for the M&WDPDs preparation is set out in the Council's Local Development Scheme (November 2022).

Relevant Guidance set out within the National Planning Policy Framework and the Planning Practice Guide

- 1.4 In considering potential areas for new mineral working and waste development, we will seek to follow the guidance set out in the National Planning Policy Framework (NPPF), National Planning Policy for Waste (NPPW) and the Planning Practice Guide (PPG).

Minerals

- 1.5 Paragraph 213 of the NPPF provides advice on how mineral planning authorities should plan for a steady and supply of aggregates including by preparing a Local Aggregate Assessment and by making provision for the land-won and other elements of their Local Aggregate Assessment in their mineral plans taking into account the advice of the Aggregate Working Parties and the National Aggregate Co-ordinating Group as appropriate. It advises that such provision should take the form of specific sites, preferred areas and/or areas of search and locational criteria as appropriate. Paragraph 214 of the NPPF provides advice on how mineral planning authorities should plan for a steady and adequate supply of industrial minerals. It advises that a stock of permitted reserves should be provided to support the level of actual and proposed investment required for new or existing plant and the maintenance and improvement of equipment, including at least 25 years for brick clay. Paragraph 215 of the NPPF relates to Oil, gas and coal exploration and extraction.
- 1.6 The PPG (Paragraph: 007 Reference ID: 27-007-20140306) advises that, mineral planning authorities are encouraged to plan for minerals extraction using Ordnance Survey-based proposals maps and relevant evidence provided by the minerals industry and other appropriate bodies. It advises that this approach will allow mineral planning authorities to highlight areas where mineral extraction is expected to take place, as well as managing potentially conflicting objectives for use of land.
- 1.7 The PPG (Paragraph: 008 Reference ID: 27-008-20140306) advises that mineral planning authorities should plan for the steady and adequate supply of minerals in one or more of the following ways (in order of priority), by:
- Designating Specific Sites – where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction.
 - Designating Preferred Areas, which are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction; and/or
 - Designating Areas of Search – areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply.

1.8 The PPG (Paragraph: 010 Reference ID: 27-010-20140306) also advises that the suitability of each proposed site, whether an extension to an existing site or a new site, must be considered on its individual merits, taking into account issues such as:

- Need for the specific mineral;
- Economic considerations (such being able to continue to extract the resource, retaining jobs, being able to utilise existing plant and other infrastructure);
- Positive and negative environmental impacts (including the feasibility of a strategic approach to restoration); and
- The cumulative impact of proposals in an area.

Waste

1.9 The NPPW provides specific guidance for waste planning authorities on preparing plans and advises on the following matters, using a proportionate evidence base (NPPW paragraph 2), identifying the need for waste management facilities (NPPW paragraph 3) and identifying suitable sites and areas (NPPW paragraph 4) as well as determining planning applications (NPPW paragraph 7). NPPW paragraph 4 requires that waste planning authorities should identify, in their Local Plans, sites and/or areas for new or enhanced waste management facilities in appropriate locations and NPPW paragraph 5 requires that waste planning authorities assess the suitability of sites and/or areas for new or enhanced waste management facilities against each of the following criteria:

- the extent to which the site or area will support the other policies set out in this document (the NPPW).
- physical and environmental constraints on development, including existing and proposed neighbouring land uses, and having regard to the factors in Appendix B (of the NPPW) to the appropriate level of detail needed to prepare the Local Plan.
- the capacity of existing and potential transport infrastructure to support the sustainable movement of waste, and products arising from resource recovery, seeking when practicable and beneficial to use modes other than road transport.
- the cumulative impact of existing and proposed waste disposal facilities on the well-being of the local community, including any significant adverse impacts on environmental quality, social cohesion and inclusion or economic potential.

Need for the Mineral and Waste Development

- 1.10 It is very important that the consideration of sites and approach to allocating sites also aligns with the quantitative (as updated by more recent evidence i.e., the Council's Local Aggregate Assessment) and the spatial approach of the County Durham Plan.
- 1.11 Information pertaining to the future need for specific minerals and waste management for specific types of waste are set out below in the site assessment tables. Where necessary the site assessment tables below have been updated using information including from the Councils latest Local Aggregate Assessment (April 2022)¹. Information on the need for specific types of waste development is set out in the County Durham Plan. Updated information on waste arisings, imports and exports of waste into County Durham, waste fate and remaining landfill capacity is set out in the County Durham Annual Monitoring Report 20/21.

Operator Proposed Sites

- 1.12 As part of the process of preparing the M&WDPD the Council undertook a call for new minerals and waste sites between Friday 15th January 2021 and Friday 26th February 2021. In total 17 site allocation proposals were received (two of which involved both minerals and waste). The site allocation proposals are summarised below in Tables 1 (minerals sites) and 2 (waste sites).
- 1.13 The majority of the sites allocation proposals are assessed in this document. However, only very limited information was provided for three sites² and for these sites/or where a more high-level response is deemed more appropriate a response was provided in the 'Minerals and Waste Policies and Allocations Document - Summary of Consultation Regulation 18 Notice of intent to prepare a Development Plan Document and Minerals and Waste Call for Sites (September 2021)'. For all other site allocation proposals we have sought to assess each in turn. Where necessary we have also sought further information, to enable the Council to come to a final decision on whether sites could be suitable for allocation.

¹ Joint Local Aggregate Assessment for County Durham, Northumberland and Tyne & Wear (2020 and 2019 Sales & Reserves Data) (April 2022).

² Thrislington East Quarry, Coal Preferred Area and Undefined Sand and Gravel Area of Search.

Table 1: Overview of Sites Proposed by Operators/Consultants for minerals extraction.

Site No.	Site Name and Location	Key Details	Site Allocation Proposer/ Operator	Where addressed
M1	Witch Hill Quarry Eastern Extension . (Land west of Thornley).	5 million tonnes of magnesian limestone for aggregate and agricultural lime uses. Quarrying would commence in 2030 and would last approximately 25 years. Anticipated production 200,000 tonnes per annum.	Breedon	This document.
M2	Raisby Quarry Eastern Extension (Land west of Trimdon Grange).	37 million tonnes of magnesian limestone for aggregate and agricultural lime uses. Quarrying would commence in 2042. Production anticipated at up to 1.2 million tonnes per annum which would equate to approximately 960,000 tonnes of magnesian limestone aggregate and 240,000 tonnes of agricultural limes per annum over 30 years.	Breedon	This document.
M3	Crime Rigg Quarry Northern Extension . (Land east of Sherburn Hill).	1.775 million tonnes of magnesian limestone and 910,000 tonnes of Basal Permian Sand. Quarrying of limestone would commence circa 2025 to ensure sufficient sand has been exposed in the extension to enable extraction of sand to commence immediately upon exhaustion of the current reserves in Crime Rigg Quarry. Anticipated production 100,000 tonnes of limestone and 40,000 tonnes of sand per annum over 18 to 20 years	Breedon	This document.
M4	Boldron Cross Lanes (new site) (Land south of Boldron).	20 million tonnes of carboniferous limestone. Quarrying would start circa 2028 meaning that the resulting end date would be circa 2068. Anticipated production 500,000 tonnes per annum.	Breedon	This document.
M5	Low Harperley Quarry Western Extension (Land, east of Wolsingham).	700,000 tonnes of sand and gravel. Mineral working would commence circa 2032, following on from the working of existing permitted reserves. Anticipated production 150,000 tonnes per annum between 2032 and 2035/36.	Breedon	This document.
M6	Thrislington West Quarry	5,800,000 tonnes of Basal Permian Sand. Tarmac advise that existing permitted sand reserves are expected to be exhausted by	Tarmac	This document.

	(South of West Cornforth).	2025 and additional sand reserves are required to maintain current production levels. The proposed allocation could provide a further 20+years of sales to Thrislington Quarry. Anticipated production up to 300,000 tonnes per annum depending on whether limestone fines are available to blend with sand to produce a Midas Sand as occurs currently.		
M7	Thrislington East Quarry. (Land southeast of West Cornforth).	Consideration of the potential for the current restrictive sales conditions for limestone at Thrislington East Quarry to be relaxed to help meet demand for construction aggregates. No annual or overall volumes provided. No timescale for operations provided, although current permission runs until 01/07/2045.	Tarmac	Statement of Consultation (September 2021) and (November 2023)
M8	Cold Knuckle Quarry (Land west of Old Quarrington).	900,000 tonnes of magnesian limestone and 400,000 m3 of inert void space. (DCC assume that this would enable 600,000 tonnes of inert waste to be deposited). Tarmac advises the limestone would be worked over five years at a forecast production of 200,000 tonnes per annum over the period to 2027. Tarmac advises that the deposit of the waste would be completed by 2033.	Tarmac	This document.
M9	Old Quarrington Quarry (Quarrington North) (Land to the west of Old Quarrington).	1.7 million tonnes of Basal Permian Sand which would be extracted at a rate of 56,000 tonnes per annum (subject to any further increase in the sale of limestone). Tarmac propose that the sand would be worked concurrently with the existing permitted reserves of overlying limestone. The sand would be worked following the forecast exhaustion of existing permitted reserves within the quarry in 2027. No timescale for the completion of the extraction of the overlying limestone was provided but DCC assume that this could take between 30 and 45 years based on current production rates and claimed productive capacity. The allocation also proposed an allocation for waste void space: 4.93 million cubic metres of inert landfill void in total. (DCC	Tarmac	This document.

		assume that this would enable approximately 7.5 million tonnes of inert waste to be deposited) No annual scale of disposal provided. (DCC assume that at existing disposal rates this could take up to 30 years, but the availability of the void space is dependent on the extraction of the overlying mineral which could take longer).		
M10	Hulands Quarry Eastern Extension (Land west of Boldron).	14.2 million tonnes of carboniferous limestone. Quarrying would commence in 2024 following the exhaustion of permitted reserves in the existing quarry permission area which would mean that the resulting end date would be circa 2072. Anticipated production 300,000 tonnes per annum. (Note a large part of the site approximately 20 ha containing an estimated 8.2 million tonnes of carboniferous limestone is allocated under County Durham Plan Policy 58 (Preferred Areas for Future Carboniferous Limestone Extraction).	Kearton Farms Limited	This document.
M11	Eldon Quarry. (West of Old Eldon).	Variation of existing permission. Mineral to be worked clays / shale with incidental coal. Total quantity to be worked approximately 2,000,000 tonnes. Time period / end date 8th December 2039 (currently approved). Annual production rate at between 130,000 to 150,000 tonnes per annum.	The Mineral Planning Group Ltd.	This document.
M12	Coal Preferred Area	Large area of North Durham. Very limited information provided.	Banks Group.	Statement of Consultation (2021)
M13	Undefined Sand and Gravel Area of Search	Unspecified area proposed for area of search based upon British Geological Survey geological mapping data. Very limited information provided.	Banks Group.	Statement of Consultation (2021)

Table 2: Overview of Sites Proposed by Operators/Consultants for waste development.

Site No.	Site Name and Location	Key Details	Site Allocation Proposer/ Operator	Where addressed
W1	Crime Rigg Quarry (Eastern part of quarry). (Land east of Sherburn Hill).	Restoration of the existing quarry void south of the B1283 by means of infilling with imported inert construction, demolition and excavation waste (CDEW). Anticipated annual tonnage 200,000 tonnes per annum (133,000 cubic metres per annum). The overall volume of additional inert waste capacity provided would depend on final scheme. Breedon have offered three potential scenarios. Option 1 - amending the current restoration profile (an additional 434,000 cubic metres of capacity); Option 2 - low level restoration within eastern void (1,691,000 cubic metres of capacity which following cell engineering works would be estimated would result in 1,541,000 cubic metres of capacity); or Option 3 restoring to surrounding land levels (3,256,000 cubic metres of capacity which following cell engineering works is estimated would result in 3,226,000 of capacity). Based on Breedon's figures and remaining capacity at the end of 2020, the anticipated tonnage these options could provide capacity to 2032, 2040 and 2053 respectively.	Breedon	This document.
W2	Cold Knuckle Quarry (Land west of Old Quarrington).	900,000 tonnes of magnesian limestone and 400,000 m3 of inert void space. (DCC assume that this would enable 600,000 tonnes of inert waste to be deposited). Tarmac have advised that the limestone would be worked over five years at a forecast production of 200,000 tonnes per annum over the period to 2027. Tarmac advises that the deposit of the waste would be completed by 2033.	Tarmac	This document
W3	Old Quarrington Quarry (Quarrington North) (northern part of site)	Restoration of Quarrington North by means of infilling with imported inert construction, demolition and excavation waste (CDEW). Proposed waste void space: 4.93 million cubic metres	Tarmac	This document

	(Land west of Old Quarrington).	of inert waste in total (therefore approximately 5 million cubic metres). (DCC assume that this would enable approximately 7.5 million tonnes of inert waste to be deposited. The figure provided by Tarmac was 3.3 million tonnes). No annual scale of disposal provided. (DCC assume that at existing deposit rates this could take up to 30 years, but the availability of the void space is dependent on the extraction of the overlying mineral). Tarmac also proposed the allocation of land to enable 1.7 million tonnes of Basal Permian Sand to be extracted at a rate of 56,000 tonnes per annum (subject to any further increase in the sale of limestone). Tarmac propose that the sand would be worked concurrently with the existing permitted reserves of overlying limestone. The sand would be worked following the forecast exhaustion of existing permitted reserves within the quarry in 2027. No timescale for the completion of the extraction of the overlying limestone was provided but DCC assume that this could take between 30 and 45 years based on current production rates and claimed productive capacity.		
W4	Eldon Quarry (West of Old Eldon).	Deposit for Recovery Operation or Inert Landfill (temporary permission). Waste Stream(s) Inert – predominantly construction, demolition and excavation waste for recovery or disposal. No annual or overall volumes provided. No timescale for operations provided.	The Mineral Planning Group Ltd.	This document

Site Appraisal Tables

Table 3: Site M1 - Witch Hill Quarry - Proposed Eastern Extension.

Proposed Operator	Breedon
Location	Witch Hill Quarry lies on the Magnesian Limestone Escarpment, approximately 7 km to the west of Peterlee. The existing quarry extends to 10.5 hectares. The nearest settlements being Thornley approximately 1 km to the east, Shadforth approximately 950 metres to the north and Cassop 950 metres to the south. Strawberry Hill Farm and Caravan site lies approximately 200 metres to the west of the existing quarry.
Allocation Area	The proposed site allocation is for an eastern extension to Witch Hill Quarry. The proposed site allocation extends to approximately 10 hectares and lies to the east of the existing quarry. The proposed allocation lies on a broadly east-west trending spur of the escarpment on the upper slopes of Witch Hill, which falls gently in the east to a shallow col between the headwaters of Shadforth dene and Cassop Vale. It is made up of open arable farmland and divided by a network of old hawthorn hedgerows with infrequent hedgerow trees. It is bounded by the A181 to the south, Witch Hill Quarry to the west and by farmland to the north and east which falls to the steeper wooded slopes of Shadforth Dene to the north. The proposed allocation would be approximately 400 metres from Thornley.
Mineral to be extracted and proposed works:	<p>The proposed site allocation contains 5 million tonnes of magnesian limestone. Breedon has advised that two products would be produced, agricultural lime specifically for the export to Europe, mainly to Denmark and Germany and aggregates for sale to the domestic United Kingdom market.</p> <p>Breedon has advised that quarrying would commence in 2030 and would last for approximately 25 years. Production is anticipated at 200,000 tonnes per annum. No breakdown in production was provided between aggregates and agricultural lime. The previous appraisal of this site allocation proposal which was conducted in 2018 advised that between 100,000 and 150,000 tonnes of agricultural lime and between 100,000 to 150,000 tonnes of aggregates would be produced per annum. The appraisal of the site in 2018 also advised that the site could potentially provide approximately 3 million tonnes of agricultural lime and 2 million tonnes of aggregate in total.</p> <p>Breedon have advised that prior to extraction advanced works comprising tree planting, landscaping and construction of screen mounds would be undertaken along the boundaries of the proposed allocation. Extraction of the limestone would proceed by developing the existing quarry in a generally easterly direction into the</p>

	allocation area. This would involve developing a number of benches down to a depth of approximately 40 metres. It is assumed that processing of limestone will be undertaken using mobile plant in the base of the quarry.
Current Land use:	The proposed site allocation is made up of open arable farmland divided by a network of old hawthorn hedgerows with infrequent hedgerow trees.
Development Plan History:	Witch Hill Quarry has not been subject to an allocation previously. An allocation to extend the quarry was proposed in 2006 for the County Durham Minerals and Waste Development Framework which was not progressed beyond the Issues and Options stage due to the Local Government reorganisation in 2009. An allocation was also proposed in 2016 in response to the call for sites that was undertaken at the Issues and Options stage of the County Durham Plan. However, it was not a proposal which the Council favoured, and the site was not allocated within the County Durham Plan.
Development Management History (Summary)	<ul style="list-style-type: none"> • Planning permission was first granted for quarrying at Witch Hill Quarry in 1947 under an Interim Development Order (IDO) permission (No.2168) covering the southern half of the quarry. This permission was reviewed under the requirements of the Planning and Compensation Act 1991 (Durham County Council reference IDO/4/2(1)1) and a new schedule of conditions was issued in December 1994. • Planning permission was granted to extend the quarry in 1971 covering the northern half of the site (Planning Permission No. CA49294). This was subject to review under the requirements of the Environment Act 1995 (Durham County Council reference MRA/4/2) and a new schedule of conditions was issued in December 2000. • Planning permission was granted in November 2012 to allow the use of the quarry for a period of three years to test articulated dump trucks”. • A periodic review under the Environment Act 1995 was submitted in December 2015 and is awaiting determination. It is noted that the project description associated with this application referred to working recommencing in 5 years i.e., in 2020 and that the quarry would be worked to 2042. It also referred to the existing quarry containing approximately 3,125,000 tonnes of permitted reserves. In addition, the project description at that time advised that these reserves would be extracted at a rate of 150,000-200,000 tonnes per annum of which approximately 100,000 tonnes per annum would comprise agricultural lime, which would be exported to continental Europe via Seaham and/or Hartlepool docks. • In 2016 an eastern extension to provide soil storage was proposed (DM/16/03492/MIN). In total 6,370 tonnes of topsoil and subsoil was proposed to be extracted over a month period from a site area of 0.23 hectares. This application is pending consideration. • In November 2016 an application was made for a 0.4-hectare eastern extension to provide soil storage and a new access road (DM/16/03492/MIN). This application is also pending consideration.

Environmental Designations:	The proposed site allocation does not appear to be constrained by environmental designations.
Landscape (Summary, see Appendix 1)	<p>The proposed site allocation is not overlain by a national landscape designation, although land to the immediate south of the existing quarry is identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan. The proposed allocation lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.</p> <p>The landscape assessment of the site advised that the working of reserves in this area would be likely to result in some localised but significant landscape and visual effects. Some of these could be reduced through detailed design and particularly in respect of extraction limits and the use of screening landforms. Should the site be allocated, through the planning application process an appraisal of impact on landscape and visual impact will be required.</p>
Biodiversity and Geodiversity	The proposed site allocation is not sited within any nationally or locally designated sites. The existing quarry adjoins Silent Bank (Road Verge) Local Wildlife Site, however, having considered this relationship this is not an issue for the proposal. Shadforth Dene Local Wildlife Site and two areas of ancient & semi-natural woodland lie approximately 300 metres to the east of the existing site. Should the site be allocated, the impacts of dust onto these sites would need to be fully assessed and any necessary mitigation implemented. A full ecological assessment of the site would also be expected at the planning application stage. The restoration of the proposed allocation should complement the existing proposals for the restoration of the existing quarry and should provide biodiversity net gains and support the coherence of ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The restoration strategy should also aim to support the priorities of the Local Nature Recovery Strategy, delivering geo-diversity benefits where possible.
Cultural Heritage (conclusion) (See MWDPD Heritage Impact Assessment for full details)	<p>Following consultation on the Draft Plan and comments received from Historic England a desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The assessment standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Protected Wreck Sites, Registered Historic Park and Garden or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there is 2no Scheduled Monument, 5no</p>

	<p>listed buildings, and 2no Conservation Areas requiring detailed assessment. Within the surroundings of the subject site there are 6 potential non-designated heritage assets (NDHA) lying within close to middle proximity to the site. At a radius of 5km outwards from the subject site 3no Grade I and 2 Grade II* listed buildings have been identified and 7no scheduled monuments.</p> <p>The M&WDPD HIA concluded that as the subject site is physically divorced from all of the heritage assets identified there would be no impact on significance (physical fabric). The magnitude of effect upon the settings of all of the scheduled monuments, listed buildings and NDHAs identified would be either nil/minor, with the impact anticipated to be neutral (no harm). Regarding the Conservation Areas, part of the wider rural landscaping informing the setting of Old Cassop Conservation Area would be radically altered, but it would visually relate directly to the existing well established quarry workings that is closer to the conservation area boundary. The heritage values of the conservation area would not be anticipated to be significantly eroded or detracted. In views out from the Conservation Area the existing quarry workings are visually shielded due to its position to the east, the varied geography and tree coverage, the proposed site would likely have the same neutral effect in this regard. At its closest point the proposed site is within circa.83 metres from the boundary of Shadforth Conservation Area at the woodland around Shadforth Dene. The existing farmland provides a natural buffer between the edge of the conservation area and the existing quarry workings that would be reduced drawing the quarry void closer to the heritage assets boundary. The impact overall within its setting would potentially be slight adverse given the close relationship and reduction in landscape buffer. Strawberry Farm is the closest NDHA to the subject site. The impact on the setting of the NDHA would be minor and not anticipated to be harmful. This would be due to the existing quarry being positioned between the farm and the proposed extension to the workings, as such no greater harm would be caused than that which currently exists. However, should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>
Archaeology	The archaeological potential at the allocation is likely to be limited. However, through the planning application process any site more than 1 hectare in size would need evaluation with subsequent mitigation (generally excavation and recording) if anything found.
Hydrogeology and Flood Risk	The proposed site allocation lies on the Magnesian Limestone Escarpment which is a principal aquifer and lies within Groundwater Source Protection Zone 3. The site also lies in a groundwater Nitrate Vulnerable Zone (NVZ) and the groundwater body fails the Water Framework Directive standards for Nitrate in this area. The proposed

	<p>site allocation lies outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. The proposed site lies in Flood Zone 1 and therefore the proposed extension has a low probability of flooding. The main environmental risk is to groundwater due to the removal of part of the principal aquifer. While it is understood that the excavations will not extend below the water table and there may be no abstraction of water, should the site be allocated any planning application will need to demonstrate that unacceptable adverse impacts on groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented and in particular that local private water supply is not derogated in either quality or quantity. Water management on site will need to monitor and manage both surface water and groundwater. Through the planning application process a detailed hydrological and hydrogeological investigation and risk assessment would be required.</p>
<p>Access and Traffic</p>	<p>No information has been provided to detail access arrangements or vehicle numbers for the proposed allocation. It is understood that HGVs would access directly onto the A181 trunk road which runs alongside the proposed site. Through a previous scheme of working, the operator had previously advised that average daily HGV movements for the existing quarry would be forty-two vehicles (21 in and 21 out) based upon 6,350 laden vehicle trips per annum comprising 100,000 tonnes of agricultural lime and 50,000 tonnes of aggregates. It is therefore assumed that the average daily movements associated with the extension and anticipated production of 200,000 tonnes per annum would only be slightly higher (approximately 29 in and 29 out). This assessment is based upon an anticipated production of 200,000 tonnes per annum and 25 tonnes per HGV load resulting in 8,000 laden vehicle movements per year over 278 days a year. This volume of traffic would likely to be acceptable and should be able to be safely accommodated on the local highway network without any discernible environmental or amenity impacts on the surrounding road network, but this would need to be confirmed through any future planning application if the site were to be allocated. Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions. However, through the planning application process a Transport Assessment would be required.</p>
<p>Amenity Issues</p>	<p>The proposed site allocation lies in rural area. The nearest settlement of Thornley lies approximately 400 metres to the southeast and one farm lies approximately 200 metres to the east of the eastern edge of the proposed allocation. The principal effects of working on amenity would be in respect to noise, dust, blasting and visual impact. However, given the distance to nearby settlements and sensitive receptors, topography and the continuation of the existing direction of working of this site, which would occur within the quarry void, unacceptable adverse impacts on local amenity would be likely not to occur. However, through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not</p>

	occur and that suitable mitigation measures are in place or can be implemented. Should the site be allocated, visual, noise, dust and blasting assessments would have to be undertaken as part of the preparation of any future planning application.
Public Rights of Way	No Public Rights of Way (PROW) or alleged public rights of way are affected by the proposed site allocation. The nearest PROW lies to the east within Shadforth Dene, FP No 8 (Shadforth Parish). Given the distance, topography and the continuation of the existing direction of working of this site, the PROW is unlikely to be affected by unacceptable adverse impacts.
Agricultural Land	The proposed site allocation is believed to be grade 3 agricultural land (subgrade not available). Given the size of the proposed site extension it is unlikely that the proposal would raise any significant issues in terms of the loss of good quality agricultural land. However, any soils would need to be managed in accordance with best practice and used in the restoration of the site. However, through the preparation of a planning application an agricultural land classification statement would be required to assess the quality of the agricultural land.
Cumulative Impacts	<p>Within this part of County Durham there are a number of quarries in the wider area to the proposed site allocation. Witch Hill Quarry has not been worked for many years. It lies in a wider landscape with a semi-rural character where active and abandoned quarries are common. The nearest quarry is Running Waters Quarry, which is located approximately 900 metres to the west, similarly (this quarry has also not been active for many years). Crime Rigg Quarry which is both an active mineral and inert landfill site lies 1.5 km to the north. Old Quarrington Quarry and Cold Knuckles Quarry (which are now operated as one site) and is also an active mineral site and an inert landfill site lies approximately 1.9 km to the southwest.</p> <p>It is considered that the key cumulative impacts which should be considered at a plan allocation stage relate to the following matters, landscape character, visual impact, ecology, cultural heritage, water resources and traffic and transport. It is also considered that all mineral sites will have cumulative environmental impacts arising from the effects of working over an extended period regardless of mitigation measures and it is considered that many of these can only be accurately determined through a planning application accompanied by an environmental statement informed by detailed site-specific assessments. Nevertheless, it is clear that the working of the proposed allocation would extend the duration and prolong the operational impacts of working of the existing Witch Hill Quarry. However, the cumulative effect of quarrying activities on the local area is not considered to be significant. In relation to:</p> <ul style="list-style-type: none"> • Landscape and visual impacts, the proposed allocation is open to view in near and middle-distance views and widely visible at greater distances on the southern skyline across the valley of the Shadforth Beck and to

	<p>the north up to the high ground of Sherburn Hill and Crime Rigg Quarry. However, the cumulative landscape and visual impacts of multiple quarries operating within this area is considered to be small.</p> <ul style="list-style-type: none"> • Both ecological and cultural heritage impacts, the limited extent of designated sites in the locality and the more remote location of Witch Hill Quarry and its proposed allocation limits the cumulative effect of quarrying so that the impacts are localised. • Water resources, the cumulative impact of multiple quarries working above the principal aquifer is also a key consideration. However, while this site allocation is distant from other quarries, the cumulative impact will need to be considered at the planning application stage. • Traffic and transport are a key consideration, however as outlined above HGVs would access directly onto the A181 trunk road which runs alongside the proposed site allocation and these HGV movements would in effect represent a continuation of quarrying at Witch Hill Quarry. <p>While there would be some cumulative impacts with the existing workings, the potential for unacceptable cumulative impacts from this site or in combination with other proposals are not anticipated.</p>
Need and Economic Factors	<p>The Planning Practice Guidance advises that in considering proposals for new sites and extensions to existing sites it is important to consider the need for the mineral. It is considered that need should be considered at a County level, by resource type (i.e. magnesian limestone, carboniferous limestone or dolerite (the three types of crushed rock extracted from quarries within County Durham or by sand and gravel)) and that consideration should be given to the distribution of permitted reserves across sites within the County and the extent of permitted reserves within a particular sites and the scale of sales that the site has achieved in the past or could reasonably achieve in the future.</p> <p><u>Crushed Rock</u></p> <p>At a County level the Joint Local Aggregate Assessment for County Durham, Northumberland and Tyne and Wear (April 2022) (Joint LAA) advised that in quantitative terms it is considered that County Durham does not need to seek to make any additional provision for crushed rock over the period to 2035 or 2036 as there are sufficient reserves with planning permission to deliver supply over the period to 2035 and 2036. In particular, the Joint LAA (2022) advised that permitted reserves of crushed rock in County Durham were a very healthy 97,468,070 tonnes on 31.12.20 which was equivalent to a landbank of 31.1 years. In terms of overall crushed rock supply in the period to 2035, the Joint LAA indicates a demand forecast of 46,875,000 tonnes of crushed rock over the period 2021 to 2035 and a balance between supply and demand of +50,593,070 tonnes.</p> <p><u>Magnesian Limestone</u></p>

At a resource level the Joint LAA advised that it is considered that a steady and adequate supply of magnesian limestone aggregate will be able to be maintained in the long term. Of the overall 97,468,070 tonnes of permitted reserves of crushed rock within the County on 31.12.20, the Joint LAA reported that 81% of the County's crushed rock permitted reserves or 78.9 million tonnes was magnesian limestone located within the County's ten magnesian limestone quarries. While it is considered that some of these permitted magnesian limestone will unlikely to be available, as the extraction of magnesian limestone is expected to cease at Thrislington East Quarry, which in addition to containing large quantities of high grade dolomite (also known as industrial dolomite) also contains a large quantity of permitted reserves suitable for aggregates use, this unavailability is not expected to adversely affect the steady and adequate supply of crushed rock aggregate or magnesian limestone over the Plan period. This is because the operator who would have worked permitted reserves at Thrislington East Quarry is intending to instead work other permitted reserves at Cornforth West Quarry, followed by Cornforth East Quarry over the Plan period.

At a site level the Joint LAA (2022) also reported that Witch Hill Quarry contained 1.5 million tonnes of magnesian limestone suitable for aggregate (in addition it is understood to contain a further 1.5 million tonnes suitable for agricultural lime uses) on the 31.12.20 and estimated that the quarry had a productive capacity of 100,000 tonnes per annum but reported that future extraction was anticipated at between 150,000-250,000 tonnes of which 50,000-150,000 tonnes would be for aggregate uses. Taking into account Breedon's anticipated scale of working i.e., 200,000 tonnes per annum it is considered that the existing permitted reserves at Witch Hill Quarry could last 15 years. However, the quarry is currently not working and has not worked for many years and there is no indication available as to when working will resume. On this basis it is considered reasonable to conclude that, should working resume, that the existing permitted reserves should be able to meet the operators anticipated rate of production to beyond 2035.

In terms of agricultural lime, the Minerals Technical Paper explained that following the grant of planning permission to extend Bishop Middleham Quarry in March 2015, and considering other information, the Council's best estimate of dedicated reserves suitable for use for agricultural lime, was that over 4 million tonnes remained available for extraction in County Durham. This included approximately 2.8 million tonnes at Bishop Middleham Quarry, approximately 1.5 million tonnes at Witch Hill Quarry, reserves at Crime Rigg Quarry and at Running Waters Quarry. Based on sales since 2010, which have been approximately 200,000-300,000 tonnes per annum, dedicated reserves appear sufficient to maintain a steady and adequate supply of agricultural lime. In addition, as a result of information received from mineral operators the Council understands that significant

	<p>quantities of agricultural lime are available and are produced at other magnesian limestone quarries where dedicated reserves have not been published in the North East Aggregates Party Annual Monitoring Reports including s at Coxhoe (Raisby) Quarry.</p> <p>The proposed site allocation would provide for both direct and indirect employment associated with the winning and working of minerals throughout the life of the allocation. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the allocation. The Company advise that the agricultural lime would be exported through Seaham Harbour in County Durham and the Port of Hartlepool. However, given the scale of remaining permitted reserves within Witch Hill Quarry it is considered that these economic benefits could also be achieved through the working of existing permitted reserves.</p>
<p>Locational Approach to the Future Supply of Primary Aggregates</p>	<p>Locationally this proposal complies with the requirements of CDP Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). The site falls outside of and not adversely affect the North Pennines Area of Outstanding Natural Beauty (AONB), the County Durham Heritage Coast, or upon the county's Parks and Gardens of Special Historic Interest, Historic Battlefield, Conservation Areas and Scheduled Ancient Monuments. The site does not either contain or could adversely affect internationally and nationally designated sites and irreplaceable habitats. The site is not located on a prominent escarpment slope.</p>
<p>Conclusion</p>	<p>Witch Hill Quarry has planning permission to 2042 and at the end of 2020 contained 3 million tonnes of magnesian limestone suitable for both aggregate and agricultural lime uses. Given the extent of permitted reserves of crushed rock aggregate and the adequacy of the crushed rock landbank at County level, and the extent of permitted reserves of magnesian limestone (suitable for aggregate and agricultural lime) within Witch Hill Quarry the Council does not consider that there is a need to allocate an extension to this quarry at this time in order to meet long term need to 2035.</p> <p>Breedon has proposed an anticipated start date would be approximately 2030 and the site would operate for 25 years and therefore it is considered that they consider that the proposed allocation would seek to meet longer term need mostly beyond the current Plan period. Subject to need at a future date and environmental acceptability, it is considered that an eastern extension would be logical and should be considered for allocation within future iterations of the development plan in County Durham. In the interim the proposed allocation area is safeguarded by virtue of lying within the Council's magnesian limestone mineral safeguarding area and is also washed over by the Witch Hill Minerals and Waste Site Safeguarding Zone and therefore on this basis it is not necessary to provide any additional protection or status to the land which was proposed to be allocated.</p>

	An eastern extension to Which Hill Quarry is not required over the period to 2035 and is not currently required to maintain a steady and adequate supply of crushed rock or magnesian limestone aggregate and should not be allocated within the Minerals and Waste Policies and Allocations document.
--	--

Map 1 - Witch Hill Quarry - Proposed Eastern Extension

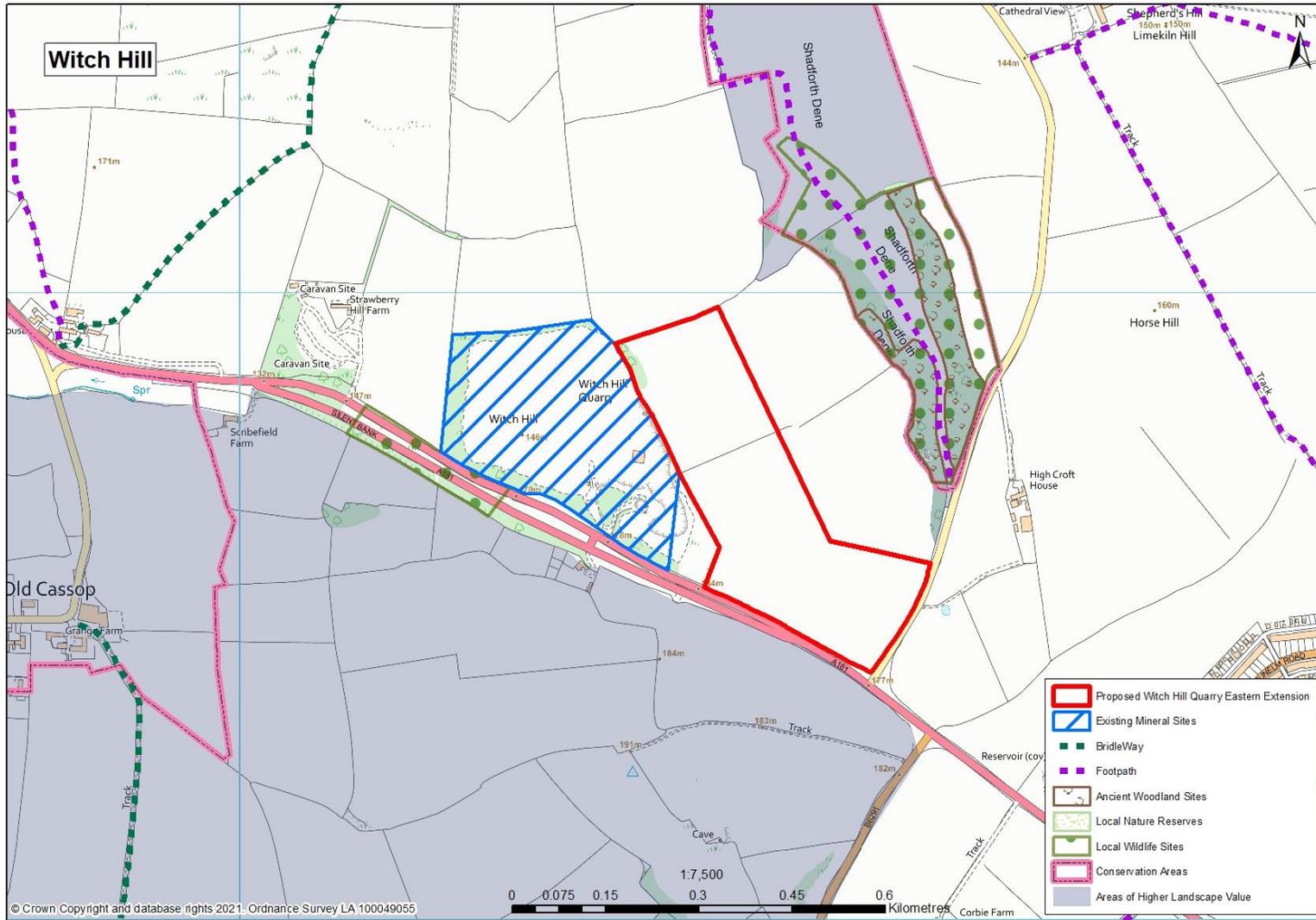


Table 4 – Site M2 - Raisby Quarry - Proposed Eastern Extension

Proposed Operator:	Breedon
Location:	Raisby Quarry (previously known as Coxhoe Quarry) lies on the Magnesian Limestone Escarpment and is located approximately 10 km south-east of Durham. The nearest settlements to the existing quarry are the villages of Kelloe 0.5 km to the north and Coxhoe, which lies approximately 1 km to the west of the quarry. The existing quarry occupies an area of 129.8 hectares.
Allocation area:	The proposed site allocation is for an eastern extension to Raisby Quarry. The site allocation extends to 28 hectares and lies on the spur between the vale of the Kelloe/Coxhoe Beck to the north and the valley to the south which is drained westward by the Garmondsway Beck and eastward by the headwaters of the Skerne. It is made up of open arable farmland and divided by a fragmented network of old hawthorn hedgerows with infrequent hedgerow trees. The proposed site allocation lies to the east of the existing quarry and would lie approximately 750 metres to the west of Trimdon Grange at its closest point.
Mineral to be extracted and proposed works:	<p>The proposed allocation contains 37 million tonnes of magnesian limestone which Breedon advise that approximately 20 percent would be suitable for producing agricultural lime for export. Breedon has advised that quarrying would commence in 2042 and would last approximately 30 years. Anticipated production is anticipated at 1.2 million tonnes per annum which would equate to approximately 960,000 tonnes of magnesian limestone aggregate and 240,000 tonnes of agricultural lime per annum.</p> <p>Breedon have advised that prior to extraction advanced works comprising tree planting, landscaping and construction of screen mounds would be undertaken along the boundaries of the proposed site. The current working face at Raisby Quarry, which is spilt into 4 benches approximately 60 metres deep in total, is advancing in an easterly direction and this would continue into and through the proposed extension area. They have advised that as is currently the practice, the mineral would be subject to drilling and blasting before being transported by dump truck to the plant located for processing and stockpiling. The existing fixed and mobile plant and stocking area located in the quarry floor would continue to be used during the development of the proposed extension.</p> <p>Breedon have also advised that proposed allocation would be restored in a manner which would be in accordance with the principles of the approved restoration scheme for the existing quarry which provides for the development of the following elements: rock outcrops and scree, agricultural land – low productivity pasture and meadow, magnesian limestone grassland, tree and shrub planting, a water body and wetland, footpaths and</p>

	<p>public access). Raisby Quarry is subject to a Biodiversity Action Plan (BAP), and this would also be extended to include the restoration of the proposed extension. The north and eastern sections of the quarry faces form the Raisby Hill Quarry Site of Special Scientific Interest (SSSI) which is a geological SSSI, and it is proposed that the site allocation would allow for the SSSI to be further extended and enhanced.</p>
Current Land use:	<p>The proposed site allocation is made up of open arable farmland divided by a fragmented network of hawthorn hedgerows with some hedgerow trees. It contains the Trimdon Grange Quarry Local Nature Reserve (LNR).</p> <p>Raisby Quarry lies to the west of the proposed allocation. National Grid infrastructure (pylons) as shown on the approved Raisby Quarry plans (Figure 3.5 Phase 3 working – DRG No NT12889/114) also lie to the west of the proposed allocation and cross the eastern area of the consented quarry in a northwest to southwest alignment. These pylons will be required to be diverted to facilitate the working of existing permitted reserves within Raisby Quarry. It is considered that should any diversionary route lie to the east of the pylons current alignment that this will form a constraint on future working and in addition to meet National Grid Requirements a 100m stand off from blasting will also be required. It is also considered that the uncertainty as to the route of the diversion constitutes an impediment to the proposed allocation at this time.</p>
Development Plan History	<p>Raisby Quarry has not been subject to an allocation previously. An extension to the quarry was first proposed as an allocation for future mineral working in 2006 as part of work to prepare the County Durham Minerals and Waste Development Framework which was not progressed beyond the Issues and Options stage due to the Local Government reorganisation in 2009. The site extension was not submitted in 2016 in response to the call for sites that was undertaken at the Issues and Options stage of the County Durham Plan which was later adopted in October 2020.</p>
Development Management History (Summary)	<ul style="list-style-type: none"> • Raisby Quarry is a long established magnesian limestone quarry that predates the planning system. The first planning permissions for the site were issued in 1947. Numerous planning permissions have been issued over the years for processing plant, sheds, workshops and offices on the site. Prior to the 2020 planning permission the most recent consent for quarrying activities was issued in 1995 under reference 4/95/666CM for the Extension of opencast mining operations and phasing restoration. • An application was submitted in 2016 for a vertical extension to the quarry and an extension of time to 2042 with ancillary operation of ready mixed concrete plant, concrete block manufacturing plant and secondary aggregate recycling facility. This application was withdrawn in March 2017. • Planning permission was granted in June 2020 to extend quarrying operations until 2042 with restoration by 2044 (.DM/17/01260/MIN).

	<ul style="list-style-type: none"> In December 2019 planning permission was granted for a Ready-Mix Concrete Plant within the quarry (DM/19/02410/MIN).
Environmental Designations:	The south-eastern part of the proposed allocation is overlain by land designation as a Local Nature Reserve. Land adjoining the southern part of the proposed allocation is adjacent to land designated as a SSSI, Local Nature Reserve and County Wildlife Site.
Landscape (Summary see, Appendix 1)	<p>The site is not overlain by any national or local landscape designations. The site lies largely within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'. Land in the north of the site lies within a Landscape Conservation Priority Area with a strategy of 'conserve & restore'.</p> <p>The landscape assessment of the site has advised that the working of reserves in this area would be unlikely to result in significant landscape and visual effects subject to detailed investigation and design, and particularly in respect of extraction limits and screening measures towards the site boundaries. However, should the site be allocated through the planning application process an appraisal of impact on landscape and visual impact will be required.</p>
Biodiversity and Geodiversity	A number of sites of importance to biodiversity and geodiversity lie within or near to the proposed site allocation, Raisby Hill Site of Special Scientific Interest (SSSI) lies within the current quarry boundary and adjoins the western part of the proposed site. This working quarry exposes a section through the Ford and Raisby Formations and the Marl Slate of the Upper Permian. The site is of particular importance for displaying its 'Type' or 'Reference' section of the Permian Raisby Formation. It is also of interest in that the rock is predominantly limestone rather than the usual dolomite, and that it contains rather a fuller and more diverse fauna than usual. It is a key section in the Marine Permian of north-east England. Trimdon Limestone Quarry SSSI adjoins the south-eastern part of the proposed site. Natural England have been specifically consulted on this proposal due to the location of the SSSIs within the quarry and near to the proposed allocation. They have advised that 'they would object to any proposals which would not protect and would have an adverse effect upon Trimdon Limestone Quarry SSSI'. Subject to this consideration they have advised that they would 'not object to the proposed allocation of an eastern extension. However, they have advised that they would expect to see further information at the planning application stage which provides evidence that the site's special interest features will be retained or enhanced and details of a restoration strategy. They advised that the restoration of the proposed allocation should: enhance and improve the ecological linkages to the designated site; support the Local Nature Recovery Strategy; deliver geodiversity benefits and provide a biodiversity net gain.'

	<p>Raisby Way and Trimdon Grange Quarry Local Nature Reserve (LNR) adjoins and partially lies within the boundary of the south-eastern part of the proposed site. A number of Local Wildlife Site (LWS) and LNRs adjoin or lie near to the proposed site including Trimdon Grange and Railway LWS which adjoins the south and south-eastern boundary of the proposed site and Trimdon Grange Pit Heap LWS. The impacts of the proposed allocation on these sites would need to be fully assessed and any necessary mitigation implemented. Due to proximity the proposed site could adversely affect locally designated sites of biodiversity and geodiversity interest.</p> <p>The restoration of the proposed allocation should complement the existing proposals for the restoration of the existing quarry and accord with Natural England's advice. A full ecological and geodiversity assessment of the site would therefore be expected at the planning application stage</p>
<p>Cultural Heritage (conclusion) (See MWDPD Heritage Impact Assessment for full details)</p>	<p>Following consultation on the Draft Plan and comments received from Historic England a limited desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The assessment standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Protected Wreck Sites or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there are 1no Scheduled Monument, 6no listed buildings, and 1no Conservation Area requiring detailed assessment. Within the surroundings of the subject site there are 6 key potential non-designated heritage assets (NDHA) lying within close proximity to the site. At a radius of 5km outwards from the subject site there are no additional scheduled monuments and no additional Grade I or II* listed buildings.</p> <p>The M&WDPD Limited HIA for this site concluded that the proposed new workings to the east of the existing quarry would cause no harm to the significance (physical fabric) of any of the heritage assets identified. The impact upon the setting of all of the heritage assets identified would either be nil or minor and not anticipated to be harmful. This would be on account of the distance, absence of context, intervisibility and any historic relationships. Should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>

Archaeology	The archaeological potential at the site is likely to be limited. However, through the planning application process any site more than 1 hectare in size would need evaluation with subsequent mitigation (generally excavation and recording) if anything found.
Hydrogeology and Flood Risk	<p>The site lies on the Magnesian Limestone Escarpment which is a principal aquifer and also lies within Groundwater Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ) and the groundwater body fails Water Framework Directive for Nitrate in this area. The southern half of the proposed site allocation lies within the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England and therefore it will be necessary to demonstrate that the allocation can be delivered without causing additional nutrient enriched water to enter the designated site. The proposed site lies in Flood Zone 1 and therefore the proposed extension has a low probability of flooding. It is understood that dewatering is undertaken within the current quarry. The main environmental risk is to groundwater due to the removal of part of the principal aquifer.</p> <p>Should the site be allocated, any planning application will need to demonstrate that unacceptable adverse impacts on groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented and that local private water supply is not derogated in either quality or quantity. Water management on site will need to monitor and manage both surface water and groundwater. As outlined above planning permission was granted in June 2020 to allow an extension of quarrying operations until 2042. At that time a hydrological and hydrogeological assessment was submitted as part of the ES in support of the application which concluded that proposed development would accord with planning policies and would not impact upon ground or surface water quality. Nonetheless, as the proposed site allocation would result in further mineral extraction of an additional 37 million tonnes of limestone, it would be essential to consider the impact on hydrology and hydrogeology. Through the preparation of a planning application detailed hydrological and hydrogeological investigation and risk assessment would be required.</p>
Access and Traffic	Raisby Quarry is accessed directly from the A177 road to the south of the existing quarry via a long private access road. The A177 links to the A1(M) to the west and the A689 to the south. Breedon initially advised that there would be no adverse impact from quarry traffic as the existing access would continue to be used and, as it is not intended to increase output from the site and the number of HGVs using it would not increase. As outlined above planning permission was granted in June 2020 to allow an extension of quarrying operations until 2042. The Committee report for this application reported that a Transport Assessment (TA) had been submitted as part of the ES in support of the application. The assessment sets out that with an average annual extraction rate of

	<p>1.14 million tonnes there would be a daily trip generation of 402 HGV movements (201 in, 201 out). This assessment was based upon 54,285 laden vehicle movements per year and 21 tonnes per load. It also advised that this was below the 1995 prediction of 500 movements per day, based on an estimated annual output of 2 million tonnes. Assuming a similar basis to vehicle movements extraction of 1.2mt of limestone per annum would result a daily trip generation of 422 vehicle movements per day (211 in 211 out). On this basis it is presumed that the proposed movements associated with the proposed extension would be very similar to that which is currently permitted. Provided that future traffic movements would be similar to that recently granted planning permission in 2020 it is considered that the volume of traffic would likely to be acceptable and should be able to be safely accommodated on the local highway network without any discernible environmental or amenity impacts on the surrounding road network, but this would need to be confirmed through any future planning application if the site were to be allocated. Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions. However, through the planning application process a Transport Assessment would still be required.</p>
Amenity	<p>The proposed allocation lies in rural area and lies over 750 metres to the west of the nearest settlement of Trimdon at its closest point. The principal effects of working on amenity would be in respect to impacts from noise, dust and blasting and visual impacts. However, given the distance to nearby settlements, topography and the continuation of the existing direction of working of this site, which would occur within the quarry void, unacceptable adverse impacts on local amenity would be likely not to occur, subject to satisfactory diversion of PROW (see below). However, through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not occur and that suitable mitigation measures are in place or can be implemented. Should the site be allocated visual, noise, dust and blasting assessments would have to be undertaken as part of the preparation of any future planning application if the site were to be allocated.</p>
Public Rights of Way	<p>There are several Public Rights of Way (PROW) within the vicinity of Raisby Quarry. No alleged public rights of way are affected by the allocation. Footpath No 11 (Kelloe Parish) skirts around the eastern extraction limit for the site and would be directly impacted by the proposed development. This would require a temporary (long-term) or permanent diversion onto a safe, convenient and logical route to the south, east and north of the extension area. Wherever possible this should not just be a diversion to the nearest adopted road. FP No 18 (Kelloe Parish) is also close to the extension area and any adverse effects on users of that footpath would need to be addressed and satisfactorily mitigated. The same applies to the Raisby Way Railway Path to the south of the site, which whilst not a public right of way is a popular recreational multi-user route owned and managed by</p>

	<p>the County Council. There are no alleged public rights of way in the vicinity of this site. Views into the extension site will need to be addressed and satisfactorily mitigated from PROW which would be affected.</p>
<p>Cumulative Impacts</p>	<p>Raisby Quarry is one of seven large magnesian limestone quarries in close geographical proximity to one another on the Magnesian Limestone Escarpment. It lies in a wider landscape with a semi-rural character where active and abandoned quarries are common. The other quarries nearby are Thrislington (East and West) Quarry straddling the A1(M) 2 km to the southwest, Cornforth Quarry (East and West) straddling the A1(M) approximately 1.5 km to the southwest, Bishop Middleham Quarry approximately 2.5 km to the south and Old Quarrington Quarry located approximately 4.5 km to the north. Cornforth Quarry (East and West) are not currently operational. A former limestone quarry and non-hazardous landfill, Joint Stocks Quarry Landfill which is in its final stages of restoration using inert material is located 1 km to the northwest.</p> <p>It is considered that the key cumulative impacts which should be considered at a plan allocation stage relate to the following matters, landscape character, visual impact, ecology, cultural heritage, water resources and traffic and transport. It is considered that all mineral sites will have cumulative environmental impacts arising from the effects of working over an extended period regardless of mitigation measures and it is considered that many of these can only be accurately determined through a planning application accompanied by an environmental statement informed by detailed site-specific assessments. Nevertheless, it is clear that the working of the proposed allocation would extend the duration and prolong the operational impacts of working Raisby Quarry on the area. In relation to the wider area to the south, the cumulative effect of quarrying activities on this area including those of Thrislington (East and West), Cornforth Quarry (East and West), Bishop Middleham and Old Quarrington are already substantial. However, in relation to Raisby Quarry:</p> <ul style="list-style-type: none"> • In terms of the landscape and visual impact of the cumulative impacts of multiple quarries operating within the area is more limited, as due to the quarry's location there are very limited opportunities to see more than quarry from a single viewpoint. This is particularly true of Raisby Quarry as it is more remote than Thrislington, Bishop Middleham and Cornforth, which are clustered around the A1(M) road to the south and east of West Cornforth. The proposed allocation would also extend the direction of working away from other quarries in the locality. • In terms of ecological impacts, the more remote location of Raisby limits the cumulative effect of quarrying so that the impacts are localised. • In terms of cultural heritage assets, the limited intervisibility of sites also reduces the cumulative impact of development upon cultural heritage assets.

	<ul style="list-style-type: none"> • In terms of water resources, the cumulative impact of multiple quarries working above the principal aquifer is a key consideration. It should be noted that the Council is not aware of any adverse impacts from current operations on groundwater. However, while this site allocation is distant from other quarries, the cumulative impact will need to be considered at the planning application stage. • In terms of traffic and transport, as outlined above provided that future traffic movements would be similar to that recently granted planning permission in 2020 it is considered that an allocation would have no discernible environmental impacts on the surrounding road network, but this would need to be confirmed through any future planning application. <p>While there would be some cumulative impacts with the existing workings, the potential for unacceptable cumulative impacts from this site or in combination with other proposals are not anticipated.</p>
Agricultural Land	<p>Based upon previous assessments undertaken for the unworked areas of the quarry, it is assumed that the proposed allocation is grade 3b agricultural land. It is assumed therefore that the proposal would not result in the loss of best and most versatile agricultural land. Any soils would need to be managed in accordance with best practice and used in the restoration of the site. However, through the preparation of a planning application an agricultural land classification statement would be required to assess the quality of the agricultural land.</p>
Need and Economic Factors	<p>The Planning Practice Guidance advises that in considering proposals for new sites and extensions to existing sites it is important to consider the need for the mineral. It is considered that need should be considered at a County level, by resource type (i.e. magnesian limestone, carboniferous limestone or dolerite (the three types of crushed rock extracted from quarries within County Durham or by sand and gravel)) and that consideration should be given to the distribution of permitted reserves across sites within the County and the extent of permitted reserves within a particular sites and the scale of sales that the site has achieved in the past or could reasonably achieve in the future.</p> <p>Crushed Rock</p> <p>At a County level the Joint Local Aggregate Assessment for County Durham, Northumberland and Tyne and Wear (April 2022) (Joint LAA) advised that in quantitative terms it is considered that County Durham does not need to seek to make any additional provision for crushed rock over the period to 2035 or 2036 as there are sufficient reserves with planning permission to deliver supply over the period to 2035 and 2036. In particular, the Joint LAA (2022) advised that permitted reserves of crushed rock in County Durham were a very healthy 97,468,070 tonnes on 31.12.20 which was equivalent to a landbank of 31.1 years. In terms of overall crushed rock supply in the period to 2035, the Joint LAA indicates a demand forecast of 46,875,000 tonnes of crushed rock over the period 2021 to 2035 and a balance between supply and demand of +50,593,070 tonnes.</p>

Magnesian Limestone

At a resource level the Joint LAA advised that it is considered that a steady and adequate supply of magnesian limestone aggregate will be able to be maintained in the long term. Of the overall 97,468,070 tonnes of permitted reserves of crushed rock within the County on 31.12.20, the Joint LAA reported that 81% of the County's crushed rock permitted reserves or 78.9 million tonnes was magnesian limestone located within the County's ten magnesian limestone quarries. While it is considered that some of these permitted magnesian limestone will unlikely to be available, as the extraction of magnesian limestone is expected to cease at Thrislington East Quarry, which in addition to containing large quantities of high grade dolomite (also known as industrial dolomite) also contains a large quantity of permitted reserves suitable for aggregates use, this unavailability is not expected to adversely affect the steady and adequate supply of crushed rock aggregate or magnesian limestone. This is because the operator who would have worked permitted reserves at Thrislington East Quarry is intending to instead work other permitted reserves at Cornforth West Quarry, followed by Cornforth East Quarry over the Plan period.

At a site level the Joint LAA (2022) also reported that Raisby Quarry contained 18.5 million tonnes of mineral suitable for aggregate uses on the 31.12.20 (not including reserves suitable for agricultural lime) and estimated that the quarry had a productive capacity of 850,000 tonnes per annum. The Joint LAA (2022) reported that future extraction was anticipated at approximately 850,000 tonnes per annum although this could be higher. In terms of the likely period of time Raisby Quarry could continue working, taking the operators proposed higher scale of working i.e., 1,200,000 tonnes per annum, it is considered that the existing permitted reserves at Raisby Quarry could last 15.4 years to 2035. However, taking the figure provided within the Joint LAA i.e., 850,000 tonnes per annum, it is considered that the existing permitted reserves at Raisby Quarry could last approximately 22 years to 2042. However, it should be noted that Breedon's submission in response to the call for sites anticipated that production would commence in 2042 and last approximately 30 years. On this basis the proposed allocation would meet a need which falls well beyond the end date of the County Durham Plan and would not contribute to meeting the need identified in the County Durham Plan or the steady and adequate supply of crushed rock aggregate.

In terms of agricultural lime, the Minerals Technical Paper explained that following the grant of planning permission to extend Bishop Middleham Quarry in March 2015, and considering other information, the Council's best estimate of dedicated reserves suitable for use for agricultural lime, was that over 4 million tonnes remained

	<p>available for extraction in County Durham. This included approximately 2.8 million tonnes at Bishop Middleham Quarry, approximately 1.5 million tonnes at Witch Hill Quarry, reserves at Crime Rigg Quarry and at Running Waters Quarry. Based on sales since 2010, which have been approximately 200,000-300,000 tonnes per annum, dedicated reserves appear sufficient to maintain a steady and adequate supply of agricultural lime. In addition, as a result of information received from mineral operators the Council understands that significant quantities of agricultural lime are available and are produced at other magnesian limestone quarries where dedicated reserves have not been published in the North East Aggregates Party Annual Monitoring Reports including s at Coxhoe (Raisby) Quarry. It is understood that several million tonnes of magnesian limestone suitable for agricultural lime are also available at Raisby Quarry.</p> <p>The proposed site allocation would provide for both direct and indirect employment associated with the winning and working of minerals throughout the life of the allocation. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the site allocation. However, given the scale of existing permitted reserves within Raisby Quarry it is considered that these economic benefits will be achieved through the working of existing permitted reserves over the Plan period.</p>
<p>Locational Approach to the Future Supply of Primary Aggregates</p>	<p>It is considered that locationally this proposed allocation does not fully comply with the requirements of County Durham Plan Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). While, the site falls outside of and not adversely affect the North Pennines Area of Outstanding Natural Beauty (AONB), the County Durham Heritage Coast, or upon the County's Parks and Gardens of Special Historic Interest, Historic Battlefield, Conservation Areas and Scheduled Ancient Monuments, the proposed site could adversely affect nationally and locally designated sites of biodiversity and geodiversity interest.</p>
<p>Conclusion</p>	<p>Raisby Quarry has planning permission to 2042. At the end of 2020 it was reported contained 18.5 million tonnes of crushed rock suitable for aggregate production and several million tonnes suitable for agricultural lime production. Given the extent of permitted reserves of crushed rock aggregate and the adequacy of the crushed rock landbank at County level, the extent of permitted reserves of magnesian limestone within Raisby Quarry suitable for both aggregates and agricultural lime the Council does not consider that there is a need to allocate an extension to this quarry at this time in order to meet long term need to 2035.</p> <p>Breedon has proposed an anticipated start date would be approximately 2042 and therefore it is considered that they consider that the proposed allocation to extend Raisby Quarry would be to meet future needs beyond the current Plan period. Subject to need at a future date and environmental acceptability, it is considered that an eastern extension would be logical and should be considered for allocation within future iterations of the</p>

development plan in County Durham. In the interim the majority of the proposed allocation area is safeguarded within the Council's magnesian limestone mineral safeguarding area, with a proportion washed over by Raisby Quarry Minerals and Waste Site Safeguarding Zone and therefore on this basis it is not necessary to provide any additional protection or status to the land which was proposed to be allocated.

National Grid infrastructure (pylons) as shown on the approved Raisby Quarry plans also lie to the west of the proposed allocation and cross the eastern area of the consented quarry in a northwest to southwest alignment. It is understood that these pylons will be required to be diverted to facilitate the working of existing permitted reserves and to enable an eastwards extension of the quarry. The requirement to relocate these pylons has been known by Breedon, previous operators of the quarry and National Grid for many years. However, no diversionary route has yet been agreed by Breedon (or any former operator of the quarry) with National Grid. It is considered that the resultant uncertainty as to the route and timing of the diversion constitutes an impediment to the proposed allocation at this time. The Council has facilitated discussions between National Grid and Breedon and emphasised to Breedon that the company needs to ensure that necessary discussions are undertaken with National Grid to ensure that the pylons are relocated to enable the working of existing permitted reserves and that the existing alignment is not sufficient justification for what would in essence be a new quarry. The Council has explained to National Grid the importance of the permitted reserves and crushed rock sales from Raisby Quarry and has also sought clarification on National Grid's intentions which would either be to relocate the pylons or offer compensation for sterilisation to Breedon. It is understood that National Grid may not come to a decision on whether the pylons can be relocated until the end of 2023.

An eastern extension to Raisby Quarry is not required over the period to 2035 and is not currently required to maintain a steady and adequate supply of crushed rock, or magnesian limestone aggregate and should not be allocated within the Minerals and Waste Policies and Allocations document.

Map 2 – Raisby Quarry Proposed Eastern Extension

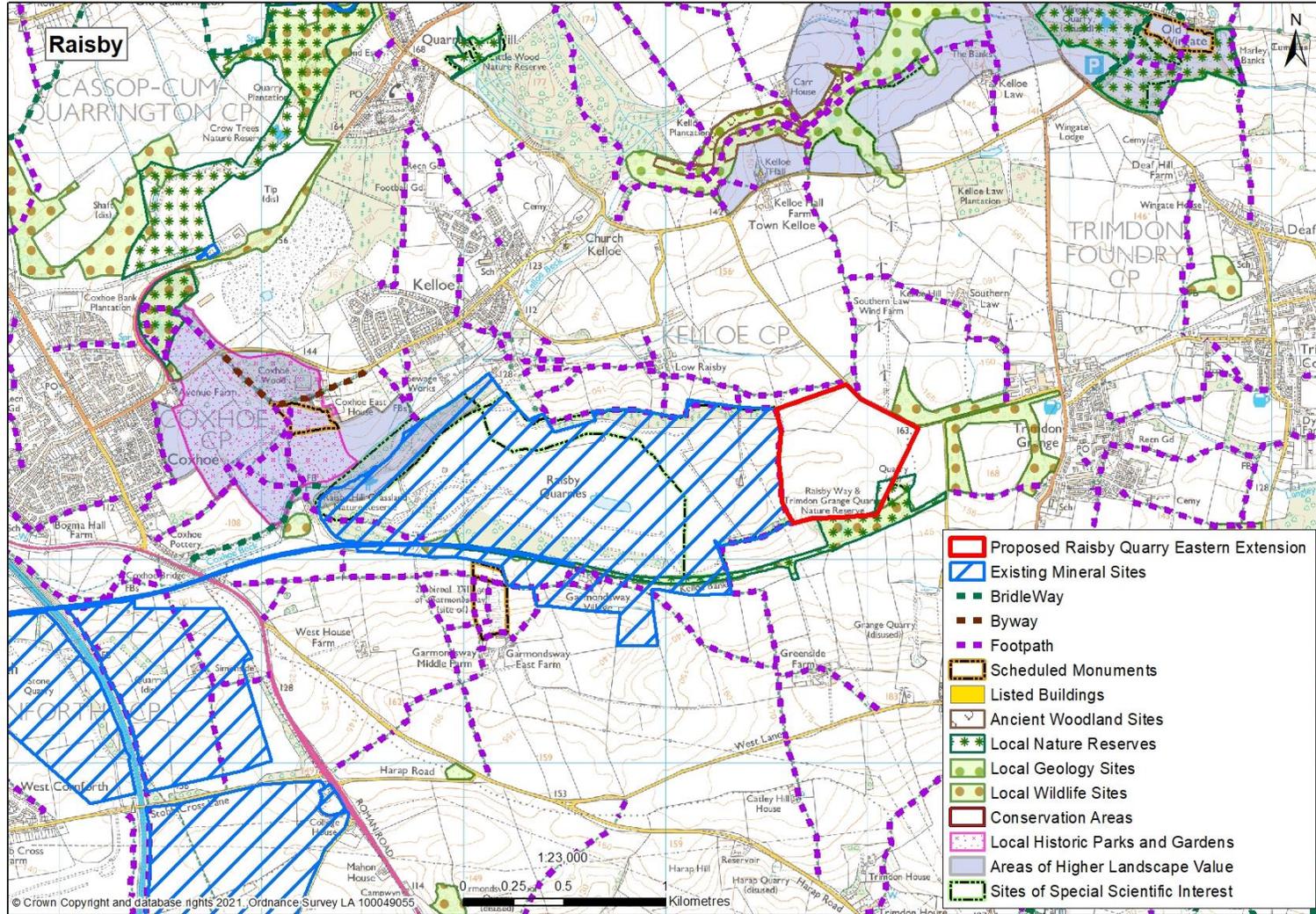


Table 5: Site M3 - Crime Rigg Quarry - Northern Extension

Proposed Operator:	Breedon
Location:	Crime Rigg Quarry lies on the Magnesian Limestone Escarpment and is located approximately 4 km to the east of Durham. The nearest settlements to the existing quarry are the villages of Sherburn Hill which lies directly to the west, Shadforth approximately 350 metres to the south and Ludworth approximately 480 metres to the southeast at their closest points.
Allocation area:	The proposed allocation extends to 9.5 hectares and would form a northern extension to Crime Rigg Quarry. The proposed site allocation lies in the gently sloping head of the shallow valley of the Sherburn Hill Burn. It is made up of open arable farmland divided by a network of old hawthorn hedgerows with infrequent hedgerow trees. It is bounded to the south by the B1283, over which lies the existing Crime Rigg Quarry, and to the northeast and west by open farmland of a similar character. The Haswell Moor wind farm lies to the immediate north and east.
Mineral to be extracted and proposed works:	<p>The potential mineral reserve is estimated at 1.775 million tonnes of magnesian limestone and 910,000 tonnes of basal Permian sand. Breedon have advised that in order to maintain continuity of supply of the underlying basal Permian sand it will be necessary to commence extraction of the limestone in the proposed extension area whilst extraction of the sand is continuing in the current working area in Crime Rigg Quarry.</p> <p>Breedon have advised that given that the remaining reserves of sand in Crime Rigg Quarry will be exhausted by 2029 at current rates of production, the preferred start date in the proposed extension would be circa 2025 to ensure sufficient sand has been exposed in the extension to enable extraction to commence immediately upon exhaustion of the current permitted reserves in the quarry. Breedon has advised that mineral extraction would last between 18 and 20 years depending upon annual sales meaning that the resulting end date would be around 2043 to 2045.</p>
Current Land use:	The proposed site allocation is made up of open arable farmland divided by a network of old hawthorn hedgerows with infrequent hedgerow trees. It contains the current access road to Crime Rigg Quarry.
Development Plan History:	Crime Rigg Quarry has not been subject to an allocation previously. In 2005 Sherburn Stone (who operated the site prior to Breedon) proposed an allocation in the County Durham Minerals and Waste Development Framework for an area of land known as the 'the stone pillar' which separated the two existing quarry areas and provided access to the quarry via a road which descended into the quarry void. However, the Minerals and Waste Development Framework was not progressed beyond the Issues and Options stage due to the Local Government reorganisation in 2009. An extension north of the B1283 was first proposed as an allocation in 2016

	<p>in response to the call for sites that was undertaken at the Issues and Options stage of the County Durham Plan, however, it was not a proposal which the Council favoured, and the site was not subsequently allocated within the County Durham Plan.</p>
<p>Development Management History (Summary)</p>	<ul style="list-style-type: none"> • Crime Rigg Quarry has a long planning history with permissions for mineral extraction going back to 1948. Planning permission for waste disposal in the western part of the quarry void was granted in 1983. • Planning permission was granted in 1994 for an eastward's extension to the permitted working area at the quarry. This permission also provided for the progressive infilling of the worked out western part of the quarry and overall restoration by 2024. As part of this permission, it was agreed that areas within the western part of the quarry which had been designated a geological Site of Special Scientific Interest (SSSI) could be infilled with waste provided that alternative suitable faces in the eastern extension area would be left exposed in mitigation thereby acting as a replacement area of SSSI. This permission superseded all previous consents and provided a single consolidating permission with accompanying legal agreements. • Planning permission was granted in 2010 to extract 170,000 tonnes of limestone and sand from a stone pillar separating the extension area from the original quarry and to relocate the quarry access to north of the B1283. This permission also enabled the recovery of 581,000 tonnes of sand and 606,000 tonnes of magnesian limestone which was sterilised by the stone pillar which separated the two parts of the quarry. In November 2011 planning permission was granted to extract and sell clay from an area in the eastern part of the quarry.
<p>Environmental Designations:</p>	<p>The proposed site allocation is not constrained by environmental designations. A Site of Special Scientific Interest (SSSI) (a geological SSSI) is located within the existing quarry related to the Lower Permian Sand features and would not be affected by the proposed development.</p>
<p>Landscape (Summary see Appendix 1)</p>	<p>The site is not overlain by any national or local landscape designations. The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'enhance'.</p> <p>The landscape assessment of the site has advised that the working of reserves in this area would be unlikely to result in significant landscape and visual effects subject to detailed design and particularly in respect of the use of screening landforms. Through the planning application process an appraisal of impact on landscape and visual impact will be required.</p>
<p>Biodiversity and Geodiversity</p>	<p>The proposed allocation is not sited within any nationally or locally designated sites. A Full ecological assessment of the site would be expected at the planning application stage. As a standalone allocation it is considered that the restoration of the proposed allocation should provide biodiversity net gains and support</p>

	<p>coherent ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The restoration strategy should also aim to support the priorities of the Local Nature Recovery Strategy, delivering geo-diversity benefits where possible. Natural England have been specifically consulted on this proposal because of Breedon's proposal for the infilling of the eastern area of Crime Rigg Quarry with inert waste. For the proposed infilling of the eastern area of Crime Rigg Quarry to be acceptable the restoration of this site allocation proposal would need to provide geological exposures which are comparable with the existing Crime Rigg Quarry SSSI interest feature (see assessment of Site W1 – Crime Rigg Quarry Waste Infilling below).</p>
<p>Cultural Heritage (conclusion) (See MWDPD Heritage Impact Assessment for full details)</p>	<p>Following consultation on the Draft Plan and comments received from Historic England a desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The assessment standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Protected Wreck Sites, Registered Historic Park and Garden or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there is 1no Scheduled Monument, 5no listed buildings, and 1no Conservation Area requiring detailed assessment. Within the surroundings of the subject site there are 3no NDHAs identified, and 4no archaeological heritage features identified within Durham County Councils Historic Environment Record (HER). At a radius of 5km outwards from the subject site 2no Grade I and 2no Grade II* listed buildings have been identified.</p> <p>The M&WDPD HIA concluded that the proposed northern quarry extension would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The impact upon the setting(s) of the heritage assets identified would be either nil, or minor and neutral. As no harm has been identified those settings would be conserved. However, should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>
<p>Archaeology</p>	<p>The archaeological potential at the site is likely to be limited. However, through the planning application process any site more than 1 hectare in size would need evaluation with subsequent mitigation (generally excavation and recording) if anything found.</p>
<p>Hydrogeology and Flood Risk</p>	<p>The proposed site allocation lies on the Magnesian Limestone Escarpment which is a principal aquifer and lies within Groundwater Protection Zone 3. It lies in a groundwater nitrate vulnerable zone (NVZ) and the</p>

	<p>groundwater body fails Water Framework Directive for Nitrate in this area. It lies outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. It lies in Flood Zone 1 and therefore the proposed extension has a low probability of flooding. It is understood that no dewatering is undertaken within the current quarry and the potential reserves are above the water table. The main environmental risk of the proposed allocation is the loss of part of the principal aquifer. There is uncertainty as to what impact the extraction of the limestone and underlying sand may have on the water table and upon groundwater quality and quantity. Should the site be allocated, any planning application will need to demonstrate that unacceptable adverse impacts on groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented and in particular that local private water supply is not derogated in either quality or quantity. Water management on site will need to monitor and manage both surface water and groundwater. Through the preparation of a planning application detailed hydrological and hydrogeological investigation and risk assessment would be required.</p>
<p>Access and Traffic</p>	<p>HGVs would access directly onto the B1283 trunk road via the existing access to the quarry which is a modern suitably engineered access (constructed following the grant of planning permission in 2010) and can accommodate 100 vehicles (50 in and 50 out). In this respect 100 vehicles (50 in and 50 out) is comparable with the level conditioned with the existing planning permissions (condition 15 of CMA/4/56 and CMA/4/57 relates to an average number of vehicles of no more than 660 per week when averages over a four-week period).</p> <p>In overall terms it is anticipated that that the scale of future mineral working and waste disposal operations at the existing Crime Rigg Quarry, together that which would be generated from the proposed allocations will be in line with current and below historic levels all of which are in any event served by the existing access. HGV movements associated with the northern extension are forecast below and are based on the northern extension being worked over 18 years and on the basis of vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes which would result in 5,966 laden vehicle movements per annum (21 in and 21 out) per day from the proposed mineral extraction. Even in combination with the existing and future proposed waste disposal operations it is considered that this volume of traffic would likely to be acceptable and should be able to be safely accommodated on the local highway network without any discernible environmental or amenity impacts on the surrounding road network, but this would need to be confirmed through any future planning application if the site were to be allocated. Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to</p>

	<p>be controlled by planning conditions. Through the planning application process a Transport Assessment would be required.</p> <p>National Highways have requested that the site allocations should consider the minimisation of trip generation at source. Given that minerals can only be worked where they are found it is considered that the scope for the minimisation of trip generation are limited. However, many mineral sites also process minerals and this occurs at Crime Rigg Quarry which contains ready mixed concrete plant, thereby limiting the movement and transport of aggregate to alternative facilities for processing. Subject to measures to prevent contamination, Crime Rigg Quarry does, however, provide opportunities to minimise the number of journeys for the transport of aggregates and inert waste, through the back hauling of inert waste into the quarry using the lorries which were used to transport aggregates from the quarry.</p>
Amenity	<p>The proposed site allocation lies in a rural area over 900 metres to the east of Sherburn Hill and over 700 metres to the northwest of Ludworth. Haswell Moor Farm lies over 600 metres to the northeast. The principal effects of working on amenity would be in respect to visual impact including from noise, dust, blasting and visual impact. However, given the distance to nearby settlements and topography unacceptable adverse impacts on local amenity would be unlikely to occur. Through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not occur and that suitable mitigation measures are in place or can be implemented. Should the site be allocated, visual, noise, dust and blasting assessments would have to be undertaken as part of the preparation of any future planning application.</p>
Public Rights of Way	<p>No Public Rights of Way (PROW) would be directly affected by the proposed allocation. Similarly, no alleged public rights of way are affected by the allocation. Three existing PROW lie to the south and southeast of the B1283 FP No 20 (Haswell Parish), Bridleway No12 (Shadforth Parish) and FP No 5 (Haswell Parish) and are of a sufficient distance and are unlikely to be affected any more than present by quarry operations. Similarly, the nearest PROW to the proposed allocation north of the B1282 is FP No 5 (Haswell Parish) which lies approximately 400 metres to the east (south and east of Haswell Moor Farm) and is of a sufficient distance as to be unaffected by adverse impacts and unlikely to be affected any more than present by quarry operations. Should the site be allocated, and planning permission subsequently granted, views into the proposed allocation will need to be addressed and satisfactorily mitigated from any PROW which would be affected.</p>
Cumulative Impacts	<p>Crime Rigg Quarry is one of three magnesian limestone quarries in close geographical proximity to one another on the Magnesian Limestone Escarpment and lies in a wider landscape with a semi-rural character where active and abandoned quarries are common. Running Waters Quarry (which is a small quarry) lies approximately 1.3 km to the south is not active and has not been active for many years. Witch Hill Quarry (which is a small quarry)</p>

lies approximately 1.5 km to the south is also not active has also not been active for many years. In addition, two dormant permissions associated with the former Tuthill Quarry, southeast of Haswell, lie approximately 3.2 km to the east.

It is considered that the key cumulative impacts which should be considered at a plan allocation stage relate to the following matters, landscape character, visual impact, ecology, cultural heritage, water resources and traffic and transport. It is also considered that all mineral sites will have cumulative environmental impacts arising from the effects of working over an extended period regardless of mitigation measures and it is considered that many of these can only be accurately determined through a planning application accompanied by an environmental statement informed by detailed site-specific assessments. The proposed extension would prolong the impacts of working in this locality.

- In relation to landscape and visual impact the cumulative impacts of multiple quarries operating within the area is considered to be small as there are very limited opportunities to see more than one quarry from a single viewpoint. Lying to the north of the B1283, the proposed allocation is not generally visible from public vantage points in the wider landscape.
- In relation to ecological impacts, the limited extent of designated sites in the locality and the more remote location of Crime Rigg Quarry and its proposed allocation limits the cumulative effect of quarrying so that the impacts are localised.
- In terms of heritage assets, the impact of the proposal on the significance and setting of heritage assets has been considered through the M&WDPD Heritage Impact Assessment and found to be acceptable.
- In terms of water resources, the cumulative impact of multiple quarries working above the principal aquifer is a key consideration. It should be noted that the Council is not aware of any adverse impacts from current operations on groundwater. However, while this site allocation is distant from other quarries, the cumulative impact will need to be considered at the planning application stage.
- In terms of traffic and transport as outlined above HGVs would access directly onto the B1283 trunk road which runs alongside the proposed site and the proposed site allocation would in effect represent a continuation of the quarrying operations which already occur at Crime Rigg Quarry. Other than the existing permitted waste infilling operations which Breedon propose to continue through the proposed allocation at the existing quarry there are no other waste developments in the locality. The predicted combination of vehicles movements from the proposed mineral working and waste disposal operations (from Site W1 - Crime Rigg Quarry Waste Infilling) are predicted to be commensurate with number of vehicle movements that the sites existing access can accommodate 100 vehicles (50 in and 50 out).

	While there would be some cumulative impacts with the existing workings, the potential for unacceptable cumulative impacts from this site or in combination with other proposals are not anticipated.
Agricultural Land	The land is grade 3 agricultural land (subgrade not available). Given the size of the site extension it is unlikely that the proposal would raise any significant issues in terms of the loss of good quality agricultural land. Any soils would need to be managed in accordance with best practice and used in the restoration of the site. Through the preparation of a planning application an agricultural land classification statement would be required to assess the quality of the agricultural land.
Need and Economic Factors	<p>The Planning Practice Guidance advises that in considering proposals for new sites and extensions to existing sites it is important to consider the need for the mineral. It is considered that need should be considered at a County level, by resource type (i.e. magnesian limestone, carboniferous limestone or dolerite (the three types of crushed rock extracted from quarries within County Durham) or by sand and gravel) and that consideration should be given to the distribution of permitted reserves across sites within the County and the extent of permitted reserves within a particular sites and the scale of sales that the site has achieved in the past or could reasonably achieve in the future.</p> <p><u>Sand and Gravel</u></p> <p>At a County level the Joint Local Aggregate Assessment for County Durham, Northumberland and Tyne and Wear (April 2022) (Joint LAA) recommended that the Council now seeks to make additional provision to maintain supply and also to maintain an appropriate landbank over the long-term and that this should be achieved by the Council seeking to allocate land for longer term working in the Council's forthcoming Minerals and Waste Policies and Allocations Document. In addition, it also recommended that in doing so, that any future allocations and permissions seek to ensure that productive capacity is maintained and that permitted reserves do not become concentrated within a small number of sites. In terms of the overall scale of additional provision that is required to be made, the Joint LAA stated that in order to maintain a seven-year landbank in 2035 it is recommended that provision is made to enable a further 5.059 million tonnes of sand and gravel to be extracted over the period to 2035. These calculations were based on reported permitted reserves of 5.247 million tonnes on 31.12.20 which was equivalent to a landbank of 11.98 years. In terms of overall sand and gravel supply in the period to 2035, the Joint LAA indicates a demand forecast of 6.57 million tonnes and a balance between supply and demand of -1.323 million tonnes. The Joint LAA advises that as indicated by the balance between supply and demand the Council will not be able to maintain a minimum seven-year landbank after 2025, which is a key indicator that further provision is now necessary to be planned for.</p>

In terms of Crime Rigg Quarry, at a site level the Joint LAA (2022) also estimated that Crime Rigg Quarry contained 350,000 tonnes of sand on the on the 31 December 2020 and estimated that the quarry had a productive capacity of 75,000 tonnes of sand per annum. However, the Joint LAA (2022), reported that future extraction was anticipated to be around 30,000 tonnes per annum, with unworked permitted reserves likely to remain at the end of 2022 when planning permission was due to end. The Joint LAA also reported that it was anticipated that a planning application to extend the time period of extraction will be made in due course and that the current permitted reserves at this site may be available to contribute to supply over a longer period of time, possibly until 2032. However, through the site submission Breedon have advised that they believe that permitted reserves will now be exhausted by 2029.

For many years and until Low Harperley Quarry commenced sand and gravel production in 2017, Crime Rigg Quarry, had been together with Old Quarrington and Cold Knuckle Quarry and Thrislington Quarry one of only three sand producing quarries in County Durham. It is considered that even if planning permission for the extraction of permitted reserves were extended beyond 31 December 2022, given the limited extent of permitted reserves of sand within the quarry that further permitted reserves will need to be made available at this quarry to enable this site to continue in operation and contribute to a steady and adequate supply of sand and gravel beyond the medium term. Without further permitted reserves the mineral extraction at Crime Rigg Quarry would cease, productive capacity would be lost and permitted reserves would become concentrated within a smaller number of sites i.e., both Thrislington West Quarry and Old Quarrington Quarry (whose own future working are also dependent upon allocations being made and planning permissions been granted) and Low Harperley which has permission to 2032 (whose operator has also sought an allocation). Should the site be allocated, taking into account the operators proposed rate of sand working, Crime Rigg Quarry could contribute up to 40,000 tonnes of sand and gravel per annum over the Plan period to 2035 and contribute to maintaining a seven-year landbank in 2035. Due to geological circumstances working of overlying magnesian limestone to access the basal Permian sand would be unavoidable.

Magnesian Limestone

At a County level the Joint Local Aggregate Assessment for County Durham, Northumberland and Tyne and Wear (April 2022) (Joint LAA) advised that in quantitative terms it is considered that County Durham does not need to seek to make any additional provision for crushed rock over the period to 2035 or 2036 as there are sufficient reserves with planning permission to deliver supply over the period to 2035 and 2036. In particular, the

Joint LAA (2022) advised that permitted reserves of crushed rock in County Durham were a very healthy 97,468,070 tonnes on 31.12.20 which was equivalent to a landbank of 31.1 years. In terms of overall crushed rock supply in the period to 2035, the Joint LAA indicates a demand forecast of 46,875,000 tonnes of crushed rock over the period 2021 to 2035 and a balance between supply and demand of +50,593,070 tonnes.

At a resource level the Joint LAA advised that it is considered that a steady and adequate supply of magnesian limestone aggregate will be able to be maintained in the long term. Of the overall 97,468,070 tonnes of permitted reserves of crushed rock within the County on 31.12.20, the Joint LAA reported that 81% of the County's crushed rock permitted reserves or 78.9 million tonnes was magnesian limestone located within the County's ten magnesian limestone quarries. While it is considered that some of the permitted magnesian limestone will unlikely to be available, as the extraction of magnesian limestone is expected to cease at Thrislington East Quarry, which in addition to containing large quantities of high grade dolomite (also known as industrial dolomite) also contains a large quantity of permitted reserves suitable for aggregates use, this unavailability is not expected to adversely affect the steady and adequate supply of crushed rock aggregate or magnesian limestone. This is because the operator who would have worked permitted reserves at Thrislington East Quarry is intending to instead work other permitted reserves at Cornforth West Quarry, followed by Cornforth East Quarry over the Plan period.

At a site level the Joint LAA (2022) also reported that Crime Rigg Quarry contained 790,000 tonnes of magnesian limestone suitable for aggregate uses on the 31.12.20 and estimated that the quarry had a productive capacity of 100,000 tonnes per annum. The Joint LAA (2022) also anticipated that should a planning application be made to extend the time limit for extraction be submitted and planning permission subsequently granted that the current permitted reserves at this site will be available to contribute to supply over a longer period of time, possibly until around 2028. Even if planning permission for the extraction of permitted reserves were extended beyond 31/12/22, given the limited extent of permitted reserves of magnesian limestone within the quarry, further permitted reserves will need to be made available at this quarry to enable this site to continue in operation and make a contribution to a steady and adequate supply of crushed rock beyond the medium term. However, as started above at a resource level there is no need.

The proposal would provide for both direct and indirect employment associated with the winning and working of minerals throughout the life of the proposed site allocation. There would also be opportunities for businesses,

	including local companies to supply goods and services throughout the life of the proposed site allocation. These economic benefits would be achieved over the Plan period.
Locational Approach to the Future Supply of Primary Aggregates	It is considered that locationally this allocation complies with the requirements of County Durham Plan Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). The site falls outside of and not adversely affect the North Pennines Area of Outstanding Natural Beauty (AONB), the County Durham Heritage Coast, or upon the County's Parks and Gardens of Special Historic Interest, Historic Battlefield, Conservation Areas and Scheduled Ancient Monuments. The site does not either contain or could adversely affect internationally and nationally designated sites and irreplaceable habitats. The site proposal also is also consistent with the locational approach to sand and gravel working as established by Policy 50 which seeks to prioritise proposals for basal Permian sand extraction from beneath the floor of existing magnesian limestone quarries, followed by the lateral extension of existing magnesian limestone quarries, followed by new sand and gravel quarries outside of environmentally important areas. The proposed allocation is not considered to be on a prominent escarpment slope.
Conclusion	<p>The proposed northern extension to Crime Rigg Quarry should be allocated within the Minerals and Waste Policies and Allocations Document. It is considered that without further permitted reserves the mineral extraction at Crime Rigg Quarry would cease, productive capacity would be lost and permitted reserves would become concentrated within a smaller number of sites. The proposed allocation would contribute to both meeting the identified need for sand and gravel to 2035, its permitted reserves would also contribute to the maintenance of a minimum seven-year sand and gravel landbank at 2035. Sales from the site would provide up to 40,000 tonnes of sand per annum and would thereby contributing to a steady and adequate supply of sand and gravel.</p> <p>Given the extent of the crushed rock permitted reserves and crushed rock landbank the working of the overlying magnesian limestone is not needed but would be unavoidable in order to recover the sand. Whilst not causing undue harm to the crushed rock landbank the working of the overlying magnesian limestone would however have the benefit of reinforcing the significant existing capacity of County Durham's crushed rock sites to maintain a steady and adequate supply of crushed rock aggregate.</p> <p>The proposed site allocation is not overlain by any environmental designation and the working of reserves in this area would be unlikely to result in any significant landscape or visual effects and would in effect be a continuation of existing working utilising existing plant and infrastructure and the existing site access.</p>

	<p>In response to specific comments from Natural England on Breedon's proposals a Heritage Impact Assessment has been undertaken on this site, principally due to the proximity of nearby Conservation Areas and Ludworth Tower which is a scheduled ancient monument. The M&WDPD Heritage Impact Assessment for this site concluded that the proposed site allocation would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The impact upon the setting(s) of the heritage assets which have been identified would be either nil, or minor and neutral. As no harm has been identified those settings would be conserved.</p>
--	---

Map 3 – Crime Rigg Quarry Proposed Northern Extension

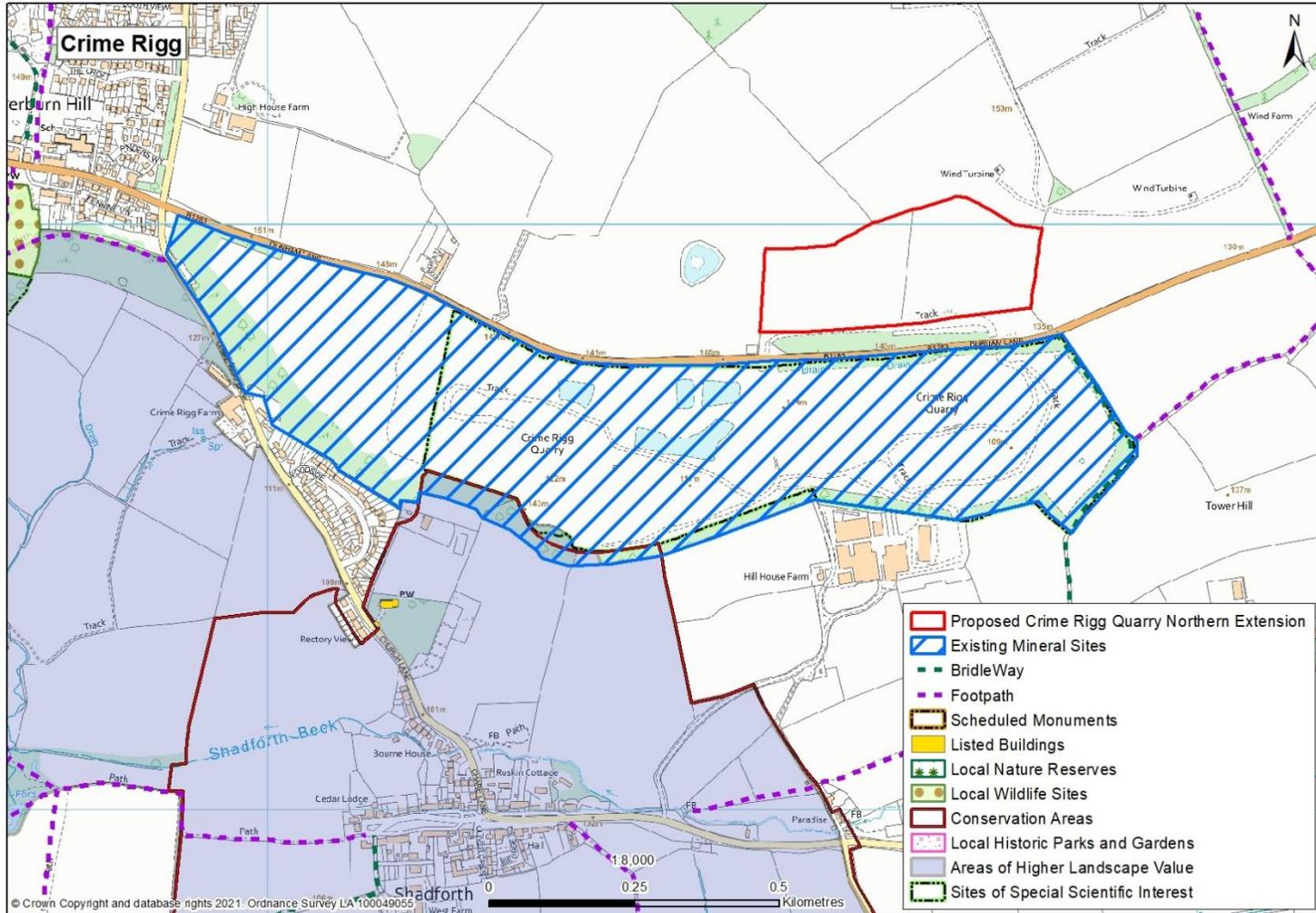


Table 6: Site W1 - Crime Rigg Quarry Waste Infilling

Proposed Operator:	Breedon
Location:	Crime Rigg Quarry lies on the Magnesian Limestone Escarpment and is located approximately 4 km to the east of Durham. The nearest settlements to the existing quarry are the villages of Sherburn Hill which lies directly to the west, Shadforth approximately 350 metres to the south and Ludworth approximately 480 metres to the southeast at their closest points.
Allocation area:	The proposed site allocation extends to 11 hectares. The site lies on a low ridge between the shallow valleys of the Sherburn Hill Burn and the Shadforth Beck. It is the eastern part of an operational quarry made up of an open void with perimeter soil mounds and structure planting. It is bounded to the north by structure planting along the B1283, over which lies the quarry access road. It is bounded to the south and east by structure planting over which lies open farmland. The Haswell Moor wind farm lies to the north and east and Hill House Farm to the south (which is owned by Breedon).
Waste Development and proposed works:	<p>Breedon propose the restoration of the eastern part of Crime Rigg quarry by means of infilling with imported inert construction, demolition and excavation waste (CDEW). The submission proposes the importation of 200,000 tonnes (133,000 cubic metres) of inert waste into the site per annum.</p> <p>Breedon have advised that on the basis of current disposal rates of approximately 200,000 tonnes per annum and the remaining capacity of 1,569,850 cubic metres (at the end of 2020) that it would take approximately 12 years (end of 2032) to fill the site to the currently approved contours. However, they have also advised that the engineering/earthworks design of Crime Rigg Landfill involves buttressing against the quarry walls, followed by the construction of the clay liner, to create a landfill cell and that this does have an impact on the available void space, up to 15%, potentially reducing the available capacity to 1,269,850 cubic metres or approximately 10 years at current infill rates. In addition, they have also advised that increasing infill rates by a third, which is feasible based on the loss of other regional landfill space, could reduce the life of the void to around 8 years. In contrast the Council has previously assumed that should the site be allocated disposal operations would not commence until 2032. This has been because Breedon are also preparing a planning application to extend the duration of mineral extraction within the existing Crime Rigg Quarry to 31 December 2030 with the restoration of the existing site by 31 December 2032.</p>

In response to a request for further information from the Council, in May 2022 Breedon provided further information about the proposed allocation and outlined three options which they acknowledge require significant further consideration and design development. Breedon have offered three potential scenarios.

- Option 1 (Rectify Current Restoration Profile) – This option seeks to address issues that Breedon have identified with the approved restoration contours for the existing quarry permission. The approved restoration scheme for the site is for agriculture, woodland, grassland and recreation and creates a valley feature orientated west-east, with increasingly steep restored valley slopes towards the eastern side of the valley. The plan also includes the replacement of farm track from Durham Road to the north, to Hill House Lane to the south. Breedon have advised that there are several practical issues with the approved restoration contours that could be improved by amendment. Breedon have advised that this option would result in an increase of approximately 434,000 cubic metres of capacity and would result in a very minor extension of the landfill towards the eastern quarry void. Breedon advise that this option would not result in a significant amendment to the contours affecting the northern quarry face and there would, therefore, be no impacts on the integrity of Crime Rigg Quarry Site of Special Scientific Interest (SSSI) which is located within the site boundary.
- Option 2 – Low Level Restoration within Eastern Void – Breedon have advised that this option would provide a significant opportunity for biodiversity net gain and/or potentially provide significant benefits in compensating for the potential loss of agricultural land relating to the northern quarry extension. The contours for this design would fall to the ‘toe’ of the northern quarry wall, protecting the integrity of the SSSI. This would result in an increase in capacity in the region of 1,691,000 cubic metres, minus additional engineering works which would reduce the net increase to approximately 1,541,000 cubic metres (DCC estimate).
- Option 3 – Restore to surrounding land levels - This option reflects the submission to the Council in 2021 and would result in the complete restoration of the quarry void to surrounding land levels which would result in the burial of the SSSI. This would result in an increase of approximately 3,526,000 cubic metres, minus additional engineering works which would reduce the net increase to approximately 3,226,000 cubic metres (DCC estimate).

Based on Breedon’s figures and remaining capacity at the end of 2020, the anticipated tonnage these options could provide capacity to 2032, 2041 and 2054 respectively (DCC estimate). Breedon submission in 2021 proposed that the restoration of the proposed site allocation would take into account the objectives of the County Durham Landscape Strategy and the County Durham Biodiversity Plan and in particular would seek to increase

	<p>the biodiversity by including for the creation of important habitats such as Magnesian Limestone Grassland. They also advised that the infilling of the site allocation would present an opportunity to increase public access through the development of a wider network of public rights of way across the restored site.</p>
Current Land use:	<p>The proposed site allocation is a quarry void and forms part of the operational area of Crime Rigg Quarry. Areas within the quarry are also designated as Crime Rigg Quarry Site of Special Scientific Interest (SSSI).</p>
Development Plan History:	<p>Crime Rigg Quarry has not previously been subject to an allocation. In 2005 Sherburn Stone (the previous operator of the quarry) proposed an allocation in the County Durham Minerals and Waste Development Framework (MWDF) for an area of land known as the 'the stone pillar' which separated the two existing quarry areas and provided access to the quarry via a road which descended into the quarry void. However, the MWDF was not progressed beyond the Issues and Options stage due to the Local Government reorganisation in 2009. An allocation north of the B1283 was first proposed as an allocation in 2016 in response to the call for sites which was undertaken at the Issues and Options stage of the County Durham Plan but was not favoured by the Council and was not allocated.</p>
Development Management History (Summary)	<p>Crime Rigg Quarry has a long planning history with permissions for mineral extraction going back to 1948.</p> <ul style="list-style-type: none"> • Planning permission for waste disposal in the western part of the quarry void was granted in 1983. • Planning permission was granted in 1994 for an eastward's extension to the permitted working area that also provided for the progressive infilling of the worked out western part of the quarry and overall restoration by 2024. As part of this permission, it was agreed that areas within the western part of the quarry which had been designated as a SSSI could be infilled with waste provided that alternative suitable faces in the eastern extension area would be left exposed in mitigation thereby acting as a replacement area of SSSI. This permission superseded all previous permissions and provided a single consolidating permission with accompanying legal agreements. • Planning permission was granted in 2010 to extract 170,000 tonnes of limestone and sand from a stone pillar separating the extension area from the original quarry and to relocate the quarry access to north of the B1283. This permission also enabled the recovery of 581,000 tonnes of sand and 606,000 tonnes of magnesian limestone which was sterilised by the stone pillar which separated the two parts of the quarry. • In November 2011 planning permission was granted to extract and sell clay from an area in the eastern part of the quarry. • The western half of Crime Rigg Quarry is currently being restored by means of infilling with imported inert construction, demolition and excavation waste under existing planning permissions and is designated as an Inert Landfill (L05 - Inert Landfill) under Environment Agency permit No 210006.

Environmental Designations:	The proposed site allocation is constrained by an environmental designation. The existing quarry is designated as a Site of Special Scientific Interest (SSSI).
Landscape (Summary see, Appendix 1)	<p>The proposed site allocation is not covered by any national or local landscape designations. The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.</p> <p>The landscape assessment of the site has advised that the importation of waste would be unlikely to result in significant landscape and visual effects subject to detailed design and particularly in respect of final restoration.</p>
Biodiversity and Geodiversity	<p>The proposed site allocation is designated as Crime Rigg Quarry Site of Special Scientific Interest (SSSI) and is a key reference section for the Permian Yellow Sands Formation. This site has been identified as of national importance in the Geological Conservation Review. Breedon acknowledge that infilling with imported inert material would result in much of the existing exposed faces forming the SSSI to be permanently concealed. Accordingly, they have proposed that newly exposed faces in the proposed northern extension to Crime Rigg Quarry would replace the current SSSI thereby allowing the designation to be removed and the proposed infilling of the remainder of Crime Rigg Quarry to proceed.</p> <p>Natural England was specifically consulted on Breedon's original proposal for inert waste infilling (now option 3) due to the location of the existing SSSI within the quarry. They have advised that 'they anticipate that the proposed geological exposures at the northern extension would be comparable with the existing SSSI interest features and therefore would agree in principle to the proposed allocation. However, they have advised that there are currently a lot of unknown factors and the proposal as submitted is considered to have an unacceptable impact upon the SSSI. Natural England expects sufficient environmental, geological and economic evidence to be provided at the planning application stage to demonstrate the viability of the proposal. They have advised that 'if the site is allocated in the future the plan should set criteria-based policies that include the need for strong evidence to demonstrate the viability of the northern extension becoming the replacement SSSI, whilst at the same time demonstrating that comparable special interest features will be exposed during the transition period (i.e., the landfill operations are concurrent with the new SSSI interest feature exposures). The restoration of the proposed allocation should: enhance and improve the ecological linkages to the designated site; support the Local Nature Recovery Strategy; deliver geodiversity benefits and provide a biodiversity net gain.'</p> <p>It is considered for the proposal to be acceptable that the evidence that Natural England have specified should be submitted at the planning application stage. The restoration of the proposed allocation should provide</p>

	<p>biodiversity net gains and support coherent ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The restoration strategy should also aim to support the priorities of the Local Nature Recovery Strategy, delivering geo-diversity benefits where possible.</p>
<p>Cultural Heritage (conclusion) (See MWDPD Heritage Impact Assessment for full details)</p>	<p>Following consultation on the Draft Plan and comments received from Historic England a desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The assessment standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Protected Wreck Sites, Registered Historic Park and Garden or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there is 1no Scheduled Monument, 5no listed buildings, and 1no Conservation Area requiring detailed assessment. Within the surroundings of the subject site there are 3 NDHA relating to buildings/features identifiable on the 1st edition OS map c.1860, and 4no archaeological heritage features identified within Durham County Councils Historic Environment Record (H.E.R). At a radius of 5km outwards from the subject site 4no Grade I and Grade II* listed buildings have been identified.</p> <p>The M&WDPD HIA concluded that the proposal would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The magnitude of effect upon the setting(s) of the heritage assets has been identified as either nil, or minor with the level of impact neutral or in some cases potentially positive. However, should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>
<p>Archaeology</p>	<p>As an operation quarry void the proposed site allocation has no archaeological potential.</p>
<p>Hydrogeology and Flood Risk</p>	<p>The proposed site allocation lies on the Magnesian Limestone Escarpment which is a principal aquifer and in a Groundwater Source Protection Zone 3. The site also lies within a groundwater nitrate vulnerable zone (NVZ) and the groundwater body fails Water Framework Directive for Nitrate in this area. The proposed site allocation lies outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. The proposed site lies in Flood Zone 1 and therefore the proposed extension has a low probability of flooding. It is understood that no dewatering is undertaken within the current quarry. The main environmental risk is to groundwater. Should the site be allocated, any planning application will need to</p>

	<p>demonstrate that unacceptable adverse impacts on groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented and that local private water supply is not derogated in either quality or quantity. Water management on site will need to monitor and manage both surface water and groundwater. Through the preparation of a planning application detailed hydrological and hydrogeological investigation and risk assessment would be required.</p>
Access and Traffic	<p>HGVs would access directly onto the B1283 trunk road via the existing access to the quarry which is a modern suitably engineered access (constructed following the grant of planning permission in 2010) and can accommodate 100 vehicles (50 in and 50 out). In this respect 100 vehicles (50 in and 50 out) is comparable with the level conditioned with the existing planning permissions (condition 15 of CMA/4/56 and CMA/4/57 relates to an average number of vehicles of no more than 660 per week when averages over a four-week period).</p> <p>In overall terms it is anticipated that that the scale of waste disposal and mineral working operations at the existing Crime Rigg Quarry, together that which would be generated from the proposed allocations will be in line with current and below historic levels all of which are in any event served by the existing access. Assuming that waste is tipped based on anticipated levels (200,000 tonnes per annum) and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this could result in 8,000 laden vehicle movements per annum (29 in and 29 out) per day from the proposed waste operation. Even in combination with the existing and future proposed waste disposal operations it is considered that this volume of traffic would likely to be acceptable and should be able to be safely accommodated on the local highway network without any discernible environmental or amenity impacts on the surrounding road network, but this would need to be confirmed through any future planning application if the site were to be allocated. Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions. Through the planning application process a Transport Assessment would be required.</p> <p>National Highways have requested that the site allocations should consider the minimisation of trip generation at source. Subject to measures to prevent contamination, Crime Rigg Quarry does, however, provide opportunities to minimise the required number of journeys to transport aggregates and inert waste through the back hauling of inert waste into the quarry using the lorries used to transport aggregates from the quarry.</p>
Amenity	<p>The area within Crime Rigg Quarry where the proposed infilling with imported inert waste is proposed lies over 1.2 km to the east of Sherburn Hill and approximately 480 metres to the northwest of Ludworth. The nearest residential properties lie approximately 560 metres to the west at Churchill Terrace. The nearest farm, Hill House</p>

	<p>Farm lie to the south of the quarry and landfill and is owned by Breedon. It is considered that the proposed operations would in effect be a continuation of existing operations and given the distance from nearby settlements and receptors unacceptable adverse impacts on amenity would be unlikely to occur. Through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not occur and that suitable mitigation measures are in place or can be implemented. Should the site be allocated, visual impact, noise and dust assessments would have to be undertaken as part of the preparation of any future planning application.</p>
<p>Public Rights of Way</p>	<p>Two existing Public Right of Way (PROW) lie adjacent to the existing quarry to the south of the B1283. No alleged public rights of way are affected by the infilling proposal. FP No 20 (Haswell Parish) and Bridleway No 12 (Shadforth Parish) lie adjacent to the existing quarry and inside the red line boundary but are separated from the working site by way of a woodland buffer strip. They are unlikely to be affected any more than present by quarry operations although some mitigation may be required, and this will need to be considered as part of the preparation of any future planning application.</p>
<p>Cumulative Impacts</p>	<p>Crime Rigg Quarry is one of three magnesian limestone quarries in close geographical proximity to one another on the Magnesian Limestone Escarpment and lies in a wider landscape with a semi-rural character where active and abandoned quarries are common. Running Waters Quarry (which is a small quarry) lies approximately 1.3 km to the south is not active and has not been active for many years. Witch Hill Quarry (which is also a small quarry) lies approximately 1.5 km to the south is also not active has not been active for many years. In addition, two dormant permissions associated with the former Tuthill Quarry, southeast of Haswell, lie approximately 3.2 km to the east.</p> <p>It is considered that the key cumulative impacts which should be considered at a plan allocation stage relate to the following matters, landscape character, visual impact, ecology, cultural heritage, water resources and traffic and transport. It is also considered that all mineral and waste sites will have cumulative environmental impacts arising from the effects of working over an extended period regardless of mitigation measures and it is considered that many of these can only be accurately determined through a planning application accompanied by an environmental statement informed by detailed site-specific assessments. The proposed allocation would prolong the impacts of waste infilling at the quarry, which has been considered acceptable in the past and what is proposed would in effect be a continuation of current operations.</p> <ul style="list-style-type: none"> • In visual and landscape terms, the proposed allocation is visually contained being within the void of the existing quarry with established structure planting to the site boundaries and unlikely to be significant effects on landscape character during the operational period and post restoration.

	<ul style="list-style-type: none"> • In terms of ecological impacts, the proposed allocation is a quarry void and the limited extent of designated sites in the locality and the more remote location of Crime Rigg Quarry and its proposed allocation limits the cumulative effect of quarrying so that the impacts are localised. However as outlined above there will be direct impact upon the geological SSSI. • In terms of water resources, the cumulative impact of mineral working and waste development above the principal aquifer is a key consideration, it is noted that the existing mineral working, and landfilling operations have in the past been found acceptable. • In terms of traffic the cumulative impacts of traffic and transport is also a key consideration, however as outlined above HGVs would access directly onto the B1283 trunk road which runs alongside the proposed site and the proposed site allocation would in effect represent a continuation of inert landfilling operations at Crime Rigg Quarry. The predicted combination of vehicles movements from the proposed waste operation and proposed mineral extraction (Site M3 - Crime Rigg Quarry - Northern Extension) would be commensurate with the volume of traffic that the existing access which can accommodate 100 vehicles (50 in and 50 out). It should be noted this level of movements does not allow for any backhauling of waste into the site using the HGVs which are used for the movement of minerals from the site. <p>While there would be some cumulative impacts with the existing workings and waste operations, the potential for unacceptable cumulative impacts from this site or in combination with other proposals are not anticipated.</p>
Agricultural Land	As a quarry void there is no agricultural land which could be affected by the proposed infilling with waste.
Need and Economic Factors	<p>There is currently an acknowledged need for further waste disposal capacity in County Durham over the Plan period to 2035. However, this is a longer-term need towards the end of the Plan period. County Durham Policy 60 (Waste Management Provision) identified a capacity gap for inert Landfill and Non-Hazardous Landfill of - 3,682.8 (m³x 1,000) and this was qualified by the supporting text of the County Durham Plan to only relate to inert landfill. Paragraph 5.587 advised, 'In respect of inert wastes, County Durham has a key role in the Northeast region with approximately three quarters of the inert void space at the end of 2016 being in three landfill sites within County Durham. In this regard the forecasting has suggested that, based on current landfill capacity and the closure dates of existing sites, due to current consents expiring during the Plan period, capacity would be exhausted by 2032'. In accordance with the provisions of Policy 60 the waste management capacity gap identified within the County Durham Plan will be calculated periodically. However, this recalculation has not yet been undertaken.</p>

While the capacity gap has not yet been recalculated the Council monitors on an annual basis the quantity of waste that is deposited and remaining landfill capacity across all of County Durham's landfill sites and has sought to prepare updated forecasts taking into account Environment Agency and waste operator information. The latest position on remaining inert landfill void space (L05 - Inert Landfill) was published by the Environment Agency in December 2021. This information identifies that remaining inert landfill void space in County Durham at the end of 2020 was a very healthy 7,261,368 cubic metres in total. This is marginally below the 7,340,326 cubic metres of remaining voids space that remained available at the end of 2016, and which was used to calculate the scale of future provision of the County Durham Plan period. At the end of 2020 58.6% of all inert landfill void space was within Bishop Middleham Quarry (4,259,637 cu m), 21.6% within Crime Rigg Quarry Landfill (1,569,850 cu m) and 19.7% within Old Quarrington Landfill (1,431,881 cu m). It should be noted that the information provided by the Environment Agency does not include void space which will be created through additional permitted mineral extraction. This includes an additional 4 million cubic metres of void space once mineral extraction has ceased at Bishop Middleham Quarry in 2029. However, it is recognised that this void space should not be relied upon as its availability is dependent upon the mineral extraction being completed by 2029 and because it would place undue reliance upon one site. Similarly, Tarmac have now advised the Council that further void space (approximately 1.4 million cubic metres) will be eventually become available at Old Quarrington Quarry within the existing permission area (CMA/4/48) but that had not been reported to the EA (Environment Agency) due to reporting procedures. However, the additional void space at Old Quarrington will be dependent on planning permission being granted to extend the duration of that permission and is likely to be only available following the extraction of permitted limestone in the northern part of the quarry. The Council will need to monitor the availability of this potential void space but other than being mindful of its long-term availability until the Council reviews its waste capacity gap calculations there is still an acknowledged need for further disposal.

Given the identified need for further void space in the County Durham Plan, the Council recognises that there is a need to either allocate and grant planning permission or grant planning permission subject to suitable schemes coming forward to ensure that the longer term need for waste disposal can be met. However, it is considered essential that sites are carefully considered to ensure that the most appropriate site or sites can be found and that whilst adequate disposal capacity is provided, that wherever possible that an over provision of capacity which would lead to excessive importation of inert waste from outside County Durham is avoided.

Inert waste has been imported and landfilled at Crime Rigg Quarry for many years and Environment Agency information indicates that over the last ten years that approximately 1.75 million tonnes has been imported and deposited at Crime Rigg Quarry Landfill. In 2020 approximately 196,000 tonnes of inert waste was deposited. Taking into account the Environment Agency reported void space information at the end of 2020 i.e., 1,569,850 cubic metres and a conversion factor of 1.5 tonnes of inert waste to the cubic metre it is calculated that 2,354,775 tonnes of inert waste will be able to be deposited within the area within the inert landfill within the quarry at the quarry. It should be noted, however, that Breedon have advised that the engineering/earthworks design of Crime Rigg landfill involves buttressing against the quarry walls, followed by the construction of the clay liner, to create a landfill cell and that this would have a significant impact on the available void space, up to 15%, potentially reducing the available capacity to 1,269,850 cubic metres.

Updated forecasts prepared as part of consideration of this allocation have been prepared based upon an annual disposal rate of 200,000 tonnes per annum (133,333 cubic metres). This rate of disposal is marginally lower than the highest rate of deposits in the last three years (216,136 tonnes) and slightly higher than deposits in 2020 which was 196,000 tonnes. It is forecast that based upon a gross capacity of 2,354,775 tonnes (1,569,850 cubic metres) and after allowing for engineering/earth which could reduce capacity to 1,904,775 tonnes (1,269,850 cubic metres net) that existing void space will be exhausted in 2029 and that in order to enable this site to continue in operation to 2035 that a further capacity will need to be permitted to enable 1,100,000 tonnes (733,333 cubic metres) to be deposited. Taking this information into account it is considered that without the provision of additional void space at this quarry that remaining inert landfill void space will be exhausted by 2029. Subject to environmental acceptability it is considered that there would be merit in the provision of additional inert void space capacity at Crime Rigg Quarry.

In relation to the options proposed by Breedon, in quantitative terms:

- Option 1 (Rectify Current Restoration Profile) would provide an additional 434,000 cubic metres of disposal capacity. DCC estimate that this option may not provide a quantum of additional disposal capacity which would likely be sufficient to ensure disposal operations throughout the plan period and would result in the closure of one of the County's three remaining inert landfill sites prior to 2035. In combination with the remaining net capacity, option 1 would still result in a shortfall of 400,000 tonnes (266,666 cubic metres to 2035).
- Option 2 (Low Level Restoration within Eastern Void) would provide an additional 1,691,000 cubic metres of capacity (1,541,00 cubic metres net or 2,311,500 tonnes net). DCC estimate this option could provide

sufficient capacity based on anticipated disposal rates (200,000 tonnes per annum) for a further 11.5 years and would ensure the continued operation of the inert landfilling operations at the quarry throughout the plan period and depending upon start date a small number of years beyond (possibly to 2040), although this would be dependent on disposal rates which if increased would reduce the sites life. Subject to the specifics of the scheme design this option could avoid adverse impacts on the geological SSSI at Crime Rigg Quarry.

- Option 3 (Restore to surrounding land levels) would provide an additional 3,256,000 cubic metres of disposal capacity (3,226,000 cubic metres net or 4,839,000 tonnes net). DCC estimate that this option would provide sufficient capacity based on anticipated disposal rates (200,000 tonnes per annum) for 24 years and would ensure the continued operation of the inert landfilling operations at the quarry throughout the plan period and depending on start date enable the site to make a continued contribution for 15 to 20 years thereafter (possibly to 2053), although this would also be dependent on future disposal rates which if increased could reduce the sites life. As stated, this is the scheme upon which Natural England was consulted upon and would result in an adverse impact on the geological SSSI at Crime Rigg Quarry due to its concealment by inert waste. In accordance with Natural England's comments the site-specific acceptability of option 3 will be dependent on the viability of the northern extension becoming the replacement SSSI, whilst at the same time demonstrating that comparable special interest features will be exposed during the transition period (i.e., the landfill operations are concurrent with the new SSSI interest feature exposures).

Subject to being allocated and necessary planning permissions and environmental permits being granted option 1 may or may not enable the continued disposal of inert waste at Crime Rigg Quarry over the plan period to 2035. In contrast, subject to being allocated and necessary planning permissions and environmental permits being granted it is recognised that both option 2 and 3 would provide capacity beyond the County Durham Plan period. Through the M&WDPD it is considered necessary for the Council to ensure that adequate provision should be made for waste disposal and not just until the current plan period ends in 2035. Should the site be allocated it is considered that an allocation should be made for only inert waste disposal and that the overall scale of future disposal will need to be determined through the design of the final scheme which would need to be carefully designed as part of the preparation of a subsequent planning application to ensure that unacceptable adverse impacts do not occur.

	<p>Should the site be allocated the proposal would provide for both direct and indirect employment associated with disposal of inert waste. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the site allocation.</p>
<p>Conclusion</p>	<p>The proposed site allocation should be allocated within the Minerals and Waste Policies and Allocations Document. It has the potential to be both suitable and also available (following the extraction of the remaining permitted reserves of magnesian limestone and sand within the quarry) for further inert waste disposal during the plan period to 2035 and could provide further waste disposal capacity within a quarry void adjacent to an existing inert landfill which has been operational since the 1990. In addition, given the size of the available void space which could become available through both options 2 and 3 the proposed site allocation has scope to contribute to longer term waste disposal requirements beyond the end of the Plan period.</p> <p>In contrast to the proposed allocation to extend Crime Rigg Quarry to the north, this site allocation is overlain by an environmental designation, Crime Rigg Quarry SSSI. As part of work to consider this proposed site allocation the Council has engaged consulted with Natural England who have advised that they would agree in principle to the allocation that was originally proposed (option 3). However, the acceptability of any planning application for option 3 will be dependent upon the operator of Crime Rigg Quarry providing sufficient environmental, geological and economic evidence at the planning application stage to demonstrate the viability to create geological exposures at the northern extension that would be comparable with the existing SSSI interest features within the existing quarry. Similarly, the acceptability of any planning application for option 2 will also be dependent upon the operator of Crime Rigg Quarry providing sufficient evidence to demonstrate that no adverse impacts upon the SSSI would occur.</p> <p>In response to specific comments from Natural England on Breedon's proposals a Heritage Impact Assessment has been undertaken on this site, principally due to the proximity of nearby Conservation Areas and Ludworth Tower which is a scheduled ancient monument. The M&WDPD Heritage Impact Assessment for this site concluded that the proposed site allocation would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The impact upon the setting(s) of the heritage assets which have been identified would be either nil, or minor and neutral. As no harm has been identified those settings would be conserved.</p>

Map 4 - Crime Rigg Quarry Waste Infilling

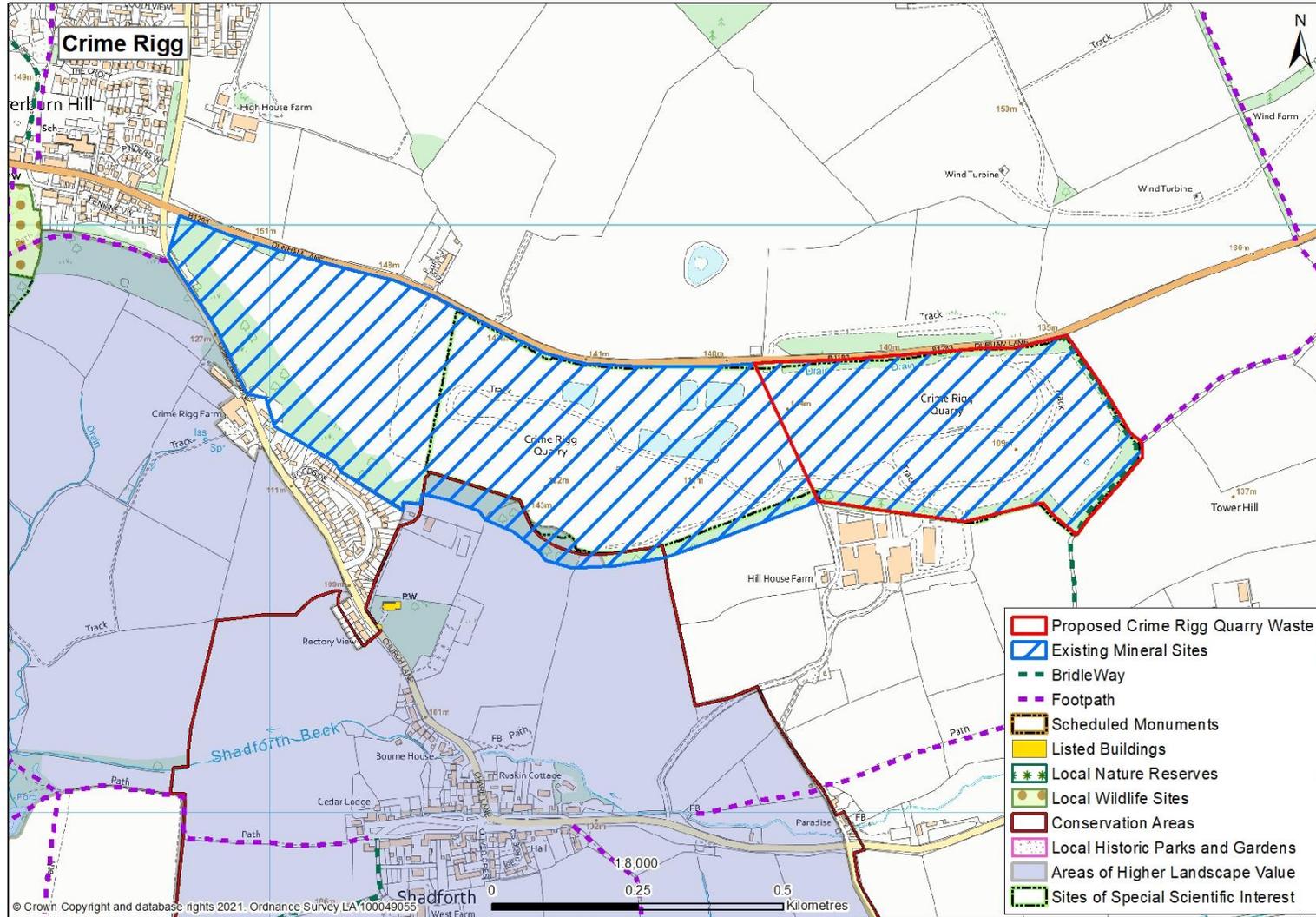


Table 7: Site M4 - Boldron Cross Lanes Proposed New Site

Proposed Operator:	Breedon
Location:	The proposed site allocation lies to the north of the A66(T) both to the west and east of the B6277 Cross Lanes Junction. Boldron lies 700 metres to the west.
Allocation area:	The proposed site allocation extends to approximately 40 hectares. It forms two distinct areas of land. The western area of land comprises (lying to the west of the B6277 and north of the A66(T) and lying to the east of North Bitts Farm (approximately 23 hectares) comprises seven fields one under broadleaved woodland (Princess Charlotte Wood) the northern end of which contains two artificial ponds. The eastern area of land comprises three large agricultural fields to the north of the A66(T) and east of the B6277 and lying to the west of Street Side Farm (approximately 17 hectares). The farmland is divided by a relatively intact network of old hedgerows with scattered hedgerow trees. Some hedgerows, particularly along the site perimeter have been replaced by wire fences. The site excludes but encloses a group of properties beside the B6277: Ivy Cottage, Smithy Cottage and The Smithy. An isolated property at Cross Lanes sits between the site and the A66(T).
Mineral to be Extracted and proposed works:	<p>The potential mineral reserve is estimated at 20 million tonnes of carboniferous limestone. Breedon anticipate that this mineral would be extracted over a forty-year period at a rate of 500,000 tonnes per annum. Breedon have advised that the preferred start date would be circa 2028 meaning that the resulting end date would be approximately 2068.</p> <p>Breedon have advised that advanced works comprising tree planting, landscaping and construction of screen mounds would be undertaken along the boundaries of the proposed site followed by construction of the site access site infrastructure. Mineral extraction would involve the development of two benches down to a depth of approximately 20 metres with the direction of working and phasing being designed to minimise impact on the local environment. Both drilling and blasting would be undertaken followed by processing operations. Breedon have advised that the main objective of the subsequent restoration would be to deliver enhanced biodiversity through the development of a number of habitats including rock outcrops and scree, agricultural land – low productivity pasture and meadow, calcareous grassland, tree and shrub planting, water bodies and wetlands. Breedon have also advised that footpaths and public access would be provided through site restoration.</p>
Current Land use:	Agricultural land, woodland and ponds.
Development Plan History:	The proposed site allocation at Boldron/Cross Lanes has not been previously nominated for an allocation.

Development Management History (Summary)	The proposed site allocation has not been subject to any previous interest in mineral working.
Environmental Designations:	The proposed site allocation is principally constrained by a local landscape designation.
Landscape (Summary see Appendix 1)	<p>The proposed site allocation lies in an area identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan. The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Conservation Priority Area (LCPA) with strategies of 'conserve and enhance' and 'conserve and restore'.</p> <p>The landscape assessment of the site has advised that the working of the reserves in this area would be likely to result in some significant effects on a valued landscape and localised significant visual effects.</p>
Biodiversity and Geodiversity	The proposed site allocation is not sited within any nationally or locally designated sites. The nearest nationally designated site lies Kilmond Scar Site of Special Scientific Interest (SSSI) lies approximately 1.7 km to the southwest and beyond the existing Kilmond Wood Quarry. Based on the proposal as submitted, Natural England considers that the proposed allocation will not have significant adverse impacts on the interest features of this SSSI. The nearest Local Wildlife Site (LWS), Thorsgill Wood LWS lies approximately 750 metres to the north. Based on the proposal as submitted, Natural England considers that the proposed allocation will not have significant adverse impacts on the interest features of this SSSI. Should the site be allocated, a full ecological assessment of the site would also be expected at the planning application stage. The restoration of the proposed allocation be designed to provide biodiversity net gains and support coherent ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The restoration strategy should also aim to support the priorities of the Local Nature Recovery Strategy, delivering geo-diversity benefits where possible.
Cultural Heritage (conclusion) (See MWDPD Heritage Impact Assessment for full details)	<p>Following consultation on the Draft Plan and comments received from Historic England a desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The assessment standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Protected Wreck Sites or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact</p>

	<p>assessment. Within the study area there is 3no Scheduled Monument, 43no listed buildings, and 1no Conservation Area requiring detailed assessment. Within the surroundings of the subject site there are 12 key potential non-designated heritage assets (NDHA) lying within close proximity to the site. At a radius of 5km outwards from the subject site 9no Grade I and 14 Grade II* listed buildings have been identified and 27no scheduled monuments. There is also one Grade II* listed Park and Garden of Special Interest - Rokeby Park.</p> <p>The M&WDPD Limited HIA for this site concluded that the proposed new workings would cause no harm to the significance (physical fabric) of any of the heritage assets identified. The impact upon the setting of the majority of the heritage assets would either be nil or minor and not anticipated to be harmful. The impact within the setting of the heritage assets in closer proximity and where intervisibility would occur would likely be moderate adverse. Should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>
Archaeology	The archaeological potential at the site is likely to be limited. Through the planning application process any site more than 1 hectare in size would need evaluation with subsequent mitigation (generally excavation and recording) if anything found.
Hydrogeology and Flood Risk	The proposed site allocation lies on the Great Limestone aquifer which is classified by the Environment Agency as a secondary (minor) aquifer capable of supporting local water supplies and base flows to streams but not large-scale water supply. The proposed site allocation lies within the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England and therefore it will be necessary to demonstrate that the allocation can be delivered without causing additional nutrient enriched water to enter the designated site. The proposed site lies in Flood Zone 1 and therefore the proposed extension has a low probability of flooding. Should the site be allocated, any planning application will need to demonstrate that unacceptable adverse impacts on groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented and that local private water supply is not derogated in either quality or quantity. Water management on site will need to monitor and manage both surface water and groundwater. Through the preparation of a planning application detailed hydrological and hydrogeological investigation and risk assessment would be required.
Access and Traffic	No information has been provided on site access arrangements or vehicle numbers for the proposed site. HGVs would need to access the proposed site via a suitable access off the B6277 and then via the A66(T) at the existing Cross Lanes Junction. Northbound traffic along the B6277 would be unsuitable as this route would

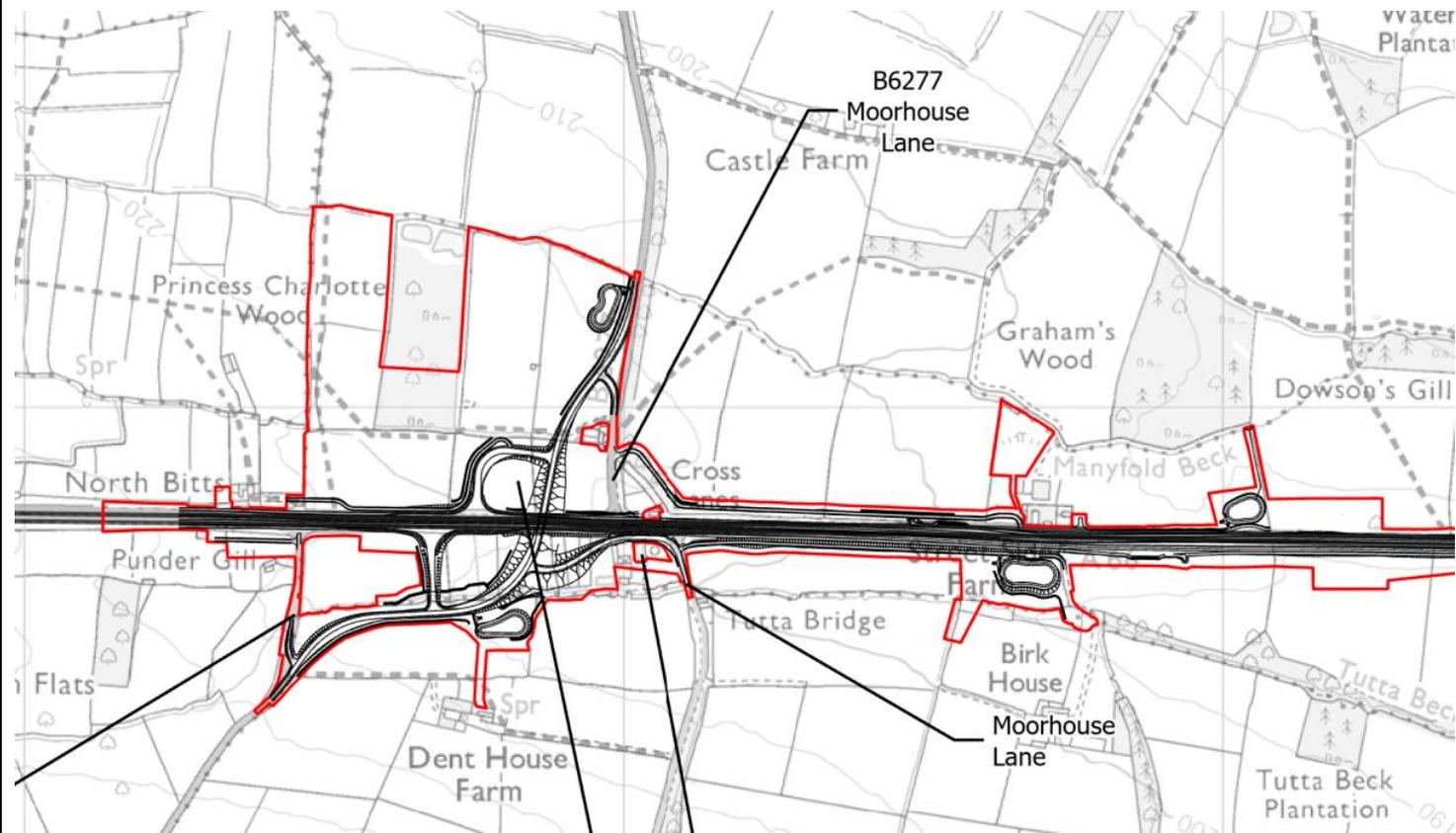
require vehicles to travel into Barnard Castle. Further information would need to be made available by Breedon on vehicle numbers and traffic and transport considerations for the proposed site. (Note the Council assumes that if the site would be worked over 20 years and on the basis of vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this would result in 20,000 laden vehicle movements per annum (72 in and 72 out) per day from the proposed mineral extraction).

The junction of the B6277 and A66(T) at Cross Lanes is due to be replaced by National Highway's as part of the A66(T) Northern Trans-Pennine project which is seeking to improve the A66(T) between M6 junction 40 at Penrith and the A1(M) at Scotch Corner. Through work to prepare the M&WDPD and consider this site allocation the Council has had regard to the latest published information which is available.

On 14 June 2021 National Highways asked the Planning Inspectorate on behalf of the Secretary of State for its opinion (a Scoping Opinion) as to the information to be provided in an Environmental Statement (ES) relating to the proposed development. The Scoping Opinion explained that subject to approval being put in place the A66(T) Northern Trans-Pennine project is due to start construction in 2024 with the intention of the route being fully open in 2031, (although it is currently anticipated that the construction activities would commence in 2024 and the scheme open to traffic in 2029 (following a 5-year accelerated construction programme)).

The Scoping Opinion also explained that Cross Lanes to Rokeby was one of the schemes where further consideration of alternative route alignments was ongoing. A number of route alignments were set out in the Scoping Opinion which would affect the proposed site allocation at Boldron Cross Lanes. The initial preferred route the black route (included within the Preferred Route Announcement) would directly impact on the availability of land to the east of the B6277 junction. This route included the upgrade of the existing junction at Cross Lanes to a compact grade separated junction. It also explained that a number of alternative alignment routes to the black route were under further consideration. The alternative route at Cross lanes, the blue route would directly impact on the availability of land to west of the B6277 junction. This route included a new grade separated junction on the A66 linking Rutherford Lane to the south and the B6277 Moorhouse Lane to the north, located west of the existing Cross Lanes priority junction. In addition, a new adjacent westbound carriageway would be constructed to the south between the B6277 junction at Cross Lanes and the existing Tutta Beck Cottage access.

In March 2022 National Highways published refined designs in a Winter Update which included revised designs for the Cross Lanes junction to make it more compact. On 21 June 2022 National Highways submitted the Development Consent Order (DCO) application for the A66 Northern Trans-Pennine project to the Planning Inspectorate (PINS). This submission sets out final design for the Cross Lanes Junction and confirms that most of the upgraded Cross Lanes junction north of the A66 will lie to the west of the B6277 junction, with further junction works to the south of the A66. Plans provided with the submission set out the limits of the route protection which encompasses most of the proposed allocation which lies to the west of the B6277 and north of the A66(T) and land directly adjoining the southwest and south of the proposed allocation lying to the east of Cross Hills junction.



	<p>The upgrading of the A66(T) and the proposed works to replace the existing junction at Cross Lanes will impact upon the proposed allocations availability for development and is a specific reason which prevents the Council from allocating land for mineral working as proposed at this location. To protect the route from potentially conflicting new development National Highways has asked local planning authorities to register the red line boundary. This means that there is route protection on the land.</p> <p>It is considered reasonable to assume that once constructed and operational that the new junction on the A66 at Cross Lanes will provide a suitable access onto the A66(T) and that the anticipated traffic flows would be unlikely to have a discernible environmental impact on traffic flow and highway safety. Should the site be allocated highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions. Through the planning application process a Transport Assessment would be required.</p>
Amenity	<p>The proposed site allocation lies in rural area. However, a number of residential properties lie between the two areas of the Boldron Cross Lanes site and along the B6277 at the existing Cross Lanes junction. In addition, operational farms lie both to the east and west of the proposed allocation. The site would also be potentially visible from elevated sections of the proposed A66(T) overbridge junction. The principal effects of working on amenity would be in respect to visual impact including lighting and impacts from noise, dust and blasting. The proximity of the residential properties and farms (if retained in situ) would impact on the ability of the operator to design an acceptable scheme of working which would not result in unacceptable adverse impacts. Suitable standoffs would be required to protect amenity from the operational impacts. Through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not occur and that suitable mitigation measures are in place or can be implemented. Should the site be allocated, visual, noise, dust and blasting assessments would have to be undertaken as part of the preparation of any future planning application.</p>
Public Rights of Way	<p>Two Public Right of Way (PROW) cross the western part of the proposed site (north to south along its western boundary, FP No 7 (Rokeby Parish) and east to west FP No 8 (Rokeby Parish) and four PROW lie to the west of the site (FP No 14 & No19 Boldron Parish, FP No 19 and FP No 1 Bowes Parish) one across the eastern part of the site (FP No 14 Rokeby Parish). The PROW within the proposed allocation would need to be satisfactorily diverted either permanently or throughout the working life of the site. In the interests of the amenity of users preferably the temporary diversion should not be adjacent to the A66(T). The latest proposals for the A66 dualling project envisage the provision of a walking and cycling (and potentially horse-riding route) parallel</p>

	<p>to the north side of the A66, preferably any diverted routes being to the north, east and west of the site. There are other PROW's immediately to the west of the site and any adverse impacts on public enjoyment of these paths should be addressed and mitigated. Views into the site will need to be addressed and satisfactorily mitigated from any PROW which would be affected. Following restoration, the PROW could revert back to its original route, or the diversion made permanent. Potentially improvements to the PROW network could be considered through the restoration of the site.</p>
Agricultural Land	<p>The land is believed to be grade 3 agricultural land (subgrade not available). Given the size of the site the proposed site allocation may result in the loss of good quality agricultural land (best and most versatile), however, this would need to be confirmed by any subsequent planning application. Should the site be allocated, through the preparation of a planning application an agricultural land classification statement would be required to assess the quality of the agricultural land.</p>
Cumulative Impacts	<p>The proposed site allocation is located within a rural landscape which accommodates two operational carboniferous limestone quarries and the A66(T). Kilmond Wood Quarry lies approximately 1 km to the west and south of the A66(T) and Hulands Quarry lies approximately 3.2 km to the west. The County Durham Plan Preferred Area to extend Hulands Quarry lies approximately 1.9 km to the west. A proposal to extend the Preferred Area to the east is also being proposed and if allocated would lie approximately 1.6 km to the west.</p> <p>It is considered that the key cumulative impacts which should be considered at a plan allocation stage relate to the following matters, landscape character, visual impact, ecology, cultural heritage, water resources and traffic and transport. It is also considered that all mineral sites will have cumulative environmental impacts arising from the effects of working over an extended period regardless of mitigation measures and it is considered that many of these can only be accurately determined through a planning application accompanied by an environmental statement informed by detailed site-specific assessments. Nevertheless, it is considered that:</p> <ul style="list-style-type: none"> • In visual and landscape terms there would be potentially significant cumulative effects in relation to the existing Hulands Quarry workings in combination with the County Durham Plan Preferred Area at Hulands Quarry, Kilmond Wood Quarry in relation to the combined effects of perimeter mounds along the A66(T). In addition, sections of the A66(T) are also proposed to be upgraded as part of the A66(T) Trans Pennine Project including via a bypass at Bowes and at Cross Lanes to Rokeby including junction improvements at Cross Lanes. The potential for significant cumulative effects in combination with other existing minerals and waste development and other proposals including the A66 Trans-Pennine project are possible.

	<ul style="list-style-type: none"> • In terms of ecological impacts, the proposed allocation is not overlain and does not lie directly adjacent to any designated sites. The limited extent of designated sites in the locality limits the potential cumulative effect of quarrying on designated sites. • In terms of heritage assets, the proposed allocation is not overlain by any heritage assets, however, as discussed above a number of listed buildings lies near to the Cross Hill Junction and near to the A66. Currently, the in-combination effect of quarrying in association with the improvements to the Cross Hills junction are uncertain, but it is expected that the anticipated improvements to the junction may benefit the setting of these assets. • In terms of water resources, the impact of quarrying elsewhere on the Great Limestone Aquifer has been found acceptable but given the proximity to other existing mineral sites it is considered the impacts are uncertain. • In terms of traffic, due to the limited information it is not possible to ascertain whether there would be potentially cumulative impacts, but this is possible given the size of the proposed site and the scale of working which is proposed.
Need and Economic Factors	<p>The Planning Practice Guidance advises that in considering proposals for new sites and extensions to existing sites it is important to consider the need for the mineral. It is considered that need should be considered at a County level, by resource type (i.e. magnesian limestone, carboniferous limestone or dolerite (the three types of crushed rock extracted from quarries within County Durham or by sand and gravel)) and that consideration should be given to the distribution of permitted reserves across sites within the County and the extent of permitted reserves within a particular sites and the scale of sales that the site has achieved in the past or could reasonably achieve in the future.</p> <p><u>Carboniferous Limestone</u></p> <p>Through the provisions of the County Durham Plan a need for additional carboniferous limestone was identified to ensure a steady and adequate supply of carboniferous limestone over the period to 2035. The County Durham Plan identified an additional requirement for 14.2 million tonnes of carboniferous limestone and 11.9 million tonnes was allocated to contribute to meeting the identified need under Policy 58 (Preferred Areas for Future Carboniferous Limestone Extraction) on land east of Hulands Quarry near Bowes and on land west of Heights Quarry near Eastgate. The Preferred Area to the east of Hulands Quarry contains 8.2 million tonnes of limestone and should planning permission be granted this site will enable the site to produce up to 300,000 tonnes of carboniferous limestone per annum. The Preferred Area to the west of Heights Quarry contained 3.7</p>

million tonnes of limestone and will enable this quarry to also produce up 300,000 tonnes of carboniferous limestone per annum and planning permission was granted in June 2019.

The latest Local Aggregate Assessment advised that “provision remains for a further 2.93 million tonnes of carboniferous limestone to be made to meet the County Durham Plan target of 14.1 million tonnes and it recommended that scope for additional provision is considered through work to prepare the Minerals & Waste Policies and Allocations document thereby helping to reinforce long term supply and productive capacity”. Through work to prepare the draft plan and consider site allocations this issue has been considered. The need identified in the County Durham Plan was sufficient to meet needs to 2035 plus ten years supply of carboniferous limestone and this forecast was calculated on this basis of generous 900,000 tonnes per annum, which is a level of sales which has not been achieved for a number of years. Therefore, this shortfall in supply is only equivalent to just over 3 years supply post 2042. It is considered that provided that the County Durham Plan allocation at Hulands Quarry for 8.2 million tonnes is permitted that the additional allocation which is now proposed is not needed to maintain a steady and adequate supply of carboniferous limestone over the period to 2035. It is considered that the County Durham Plan Preferred Area in combination with existing permissions at Heights Quarry (which now has planning permission to 31st September 2046) and Kilmond Wood Quarry (which has planning permission to 21 February 2042) should provide for a sufficient supply of carboniferous limestone. Furthermore, additional mineral may become available if mineral extraction were to resume at Broadwood Quarry (although the Joint LAA recognises that it is not certain that working will resume in Phase 3 and therefore the contribution to future supply is currently considered to be zero).

The proposal would provide for both direct and indirect employment associated with the winning and working of minerals throughout the life of the scheme. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the extension scheme. However, given the anticipated timescale and duration of working at the proposed allocation these economic benefits would largely fall beyond the Plan period.

Potentially Boldron Cross Lanes lying to the north of the A66(T) would be well placed to serve the A66(T) Trans Pennine Project. However, given the timescale of this project it considered that the A66(T) Trans Pennine Project material requirements requirement from County Durham could be served by existing permitted reserves at Kilmond Wood Quarry in association with the reserves which could become available from within the County

	Durham Plan Preferred Area which lies to the east of Hulands Quarry which would be worked over approximately 27 years at a rate of 300,000 tonnes per annum.
Locational Approach to the Future Supply of Primary Aggregates	It is considered that locationally this allocation complies with the requirements of County Durham Plan Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). The site falls outside of and not adversely affect the North Pennines Area of Outstanding Natural Beauty (AONB), the County Durham Heritage Coast, or upon the County's Parks and Gardens of Special Historic Interest, Historic Battlefield, Conservation Areas and Scheduled Ancient Monuments. The site does not either contain or could adversely affect internationally and nationally designated sites and irreplaceable habitats.
Conclusion	<p>The proposed site at Boldron Cross Lanes should not be allocated within the Minerals and Waste Policies and Allocations document. The Council considers that the existing planning permissions for the winning and working of carboniferous limestone at Kilmond Wood Quarry, Heights Quarry and at Hulands Quarry in combination with the reserves within the Preferred Area allocated under Policy 58 of the County Durham Plan should be sufficient to ensure a steady and adequate supply of carboniferous limestone over the Plan period to 2035. Breedon has proposed an anticipated start date would be approximately 2028 and the site would operate for 40 years. Therefore, this site is seeking to meet supply requirements up to 33 years beyond the Plan period. Should the site commence working in 2028 this would mean that this site would be in operation along with at least two existing permitted carboniferous limestone sites, Kilmond Wood Quarry which has permission until 2042 and Heights Quarry which has permission to 2046. Furthermore, subject to planning permission being granted to extend Hulands Quarry in accordance with the County Durham Plan allocation (Policy 58), it is likely that the proposed site would be operation with a third site which would be in operation until the late 2040s. Production of carboniferous limestone from the proposed site allocation in combination with other existing and allocated sites would result in a supply of carboniferous limestone which would be significantly in excess of both current and historical demand. This would not be consistent with a steady and adequate supply of aggregates.</p> <p>Locationally this allocation broadly complies with the requirements of County Durham Plan Policy 50 (Locational Approach to the Future Supply of Primary Aggregates) and for carboniferous limestone. However, in addition to non-allocation on grounds of need as set out above there are also a number of environmental reasons for non-allocation, in particular the landscape assessment of the site has advised that the working of the reserves in this area would be likely to result in some significant effects on a valued landscape and localised significant visual effects. Furthermore, there would be potentially significant cumulative effects in relation to the existing Hulands Quarry workings in combination with the County Durham Plan Preferred Area at Hulands Quarry, Kilmond Wood Quarry, together with the major highway works associated with the A66(T) Trans Pennine Project including</p>

	junction improvements at Cross Lanes. National Highways scheme to upgrade the A66(T) and also to provide a new junction at Cross Lanes provides significant constraint which prevents the proposed site allocation in its present form.
--	---

Map 5 - Boldron Cross Lanes Proposed New Site

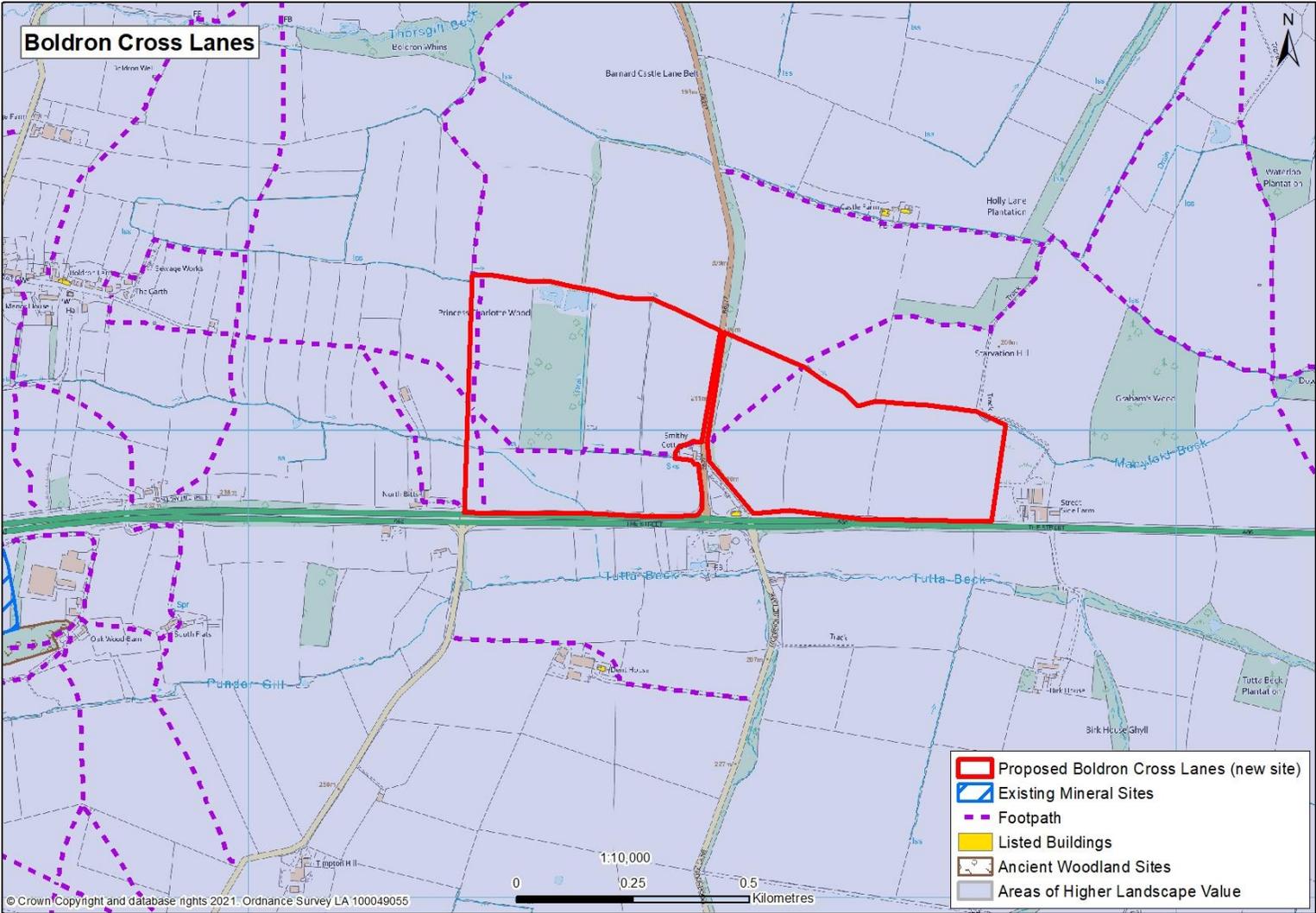


Table 8: Site M5 - Low Harperley Proposed Extension

Proposed Operator:	Breedon
Location:	The proposed site allocation lies to the north of the River Wear approximately 1.7 km to the southeast of Wolsingham and 4 km to the west of Crook.
Allocation area:	The proposed site allocation extends to approximately 20 hectares and lies on the narrow floodplain of the River Wear. It is made up of two areas of open arable farmland. It is bounded to the south by the Weardale Railway, over which lies the tree-lined River Wear. The northern boundary in the east is formed by the Gallows Beck which is followed in places by a line of trees and lies. Further west the northern boundary is formed by a low gappy hedge. The western boundary is formed by fences followed by very sporadic vegetation over which lies farmland including the Wolsingham Show field. The eastern boundary follows the Bradley Beck. A small sewage works lies between both area of land.
Mineral to be Extracted and proposed works:	<p>The potential mineral reserve is estimated at 700,000 tonnes of fluvial sand and gravel. Breedon propose that the mineral would be extracted as an extension to the existing Low Harperley site, over a four to five-year period at a rate of 150,000 tonnes per annum and that extraction would commence at about 2032 meaning and that the resulting end date, depending upon annual sales, would be approximately 2035/36.</p> <p>Breedon propose that soil and overburden stripping works would commence when sand and gravel extraction is nearing completion in the currently permitted working area at Low Harperley, with the stripped materials either being used to form screen bunds around the periphery of the extension area or in the progressive restoration of the current working area. Mineral extraction will then progress in a phased manner in an easterly direction and would be fed on to the overland conveyor which will have been installed during working in the currently permitted area to carry it the plant site for processing and stockpiling. This conveyor will be extended as necessary to serve the proposed extension. Processing and stockpiling will be undertaken on site. This may be undertaken using the existing processing plant in its current location or it may be undertaken within the proposed extension itself if a suitable site can be identified to which the plant can be re-located. Restoration of the site will to some extent be dictated by the level of the groundwater in the area of the proposed extension but given the shallow depth of the mineral deposit, it is anticipated that area will be restored to a mosaic of wetland, woodland and agriculture. Breedon advise that the site would provide opportunities to enhance local biodiversity as part of the site restoration, deliver flood attenuation as part of the restoration and increase public access through the provision of an expanded network of footpaths, bridleways and recreational amenities.</p>

Current Land use:	The proposed site allocation comprises open arable divided by a network of old field boundaries, undefined in places and with sporadic vegetation in others. The site wraps around a small sewerage treatment works.
Development Plan History:	The proposed site allocation at Low Harperley has not been previously nominated as an allocation.
Development Management History (Summary)	<ul style="list-style-type: none"> • The proposed site allocation has not been subject to any previous planning applications. Planning permission (8/CMA/3/31) was granted on land to the east of the proposed site allocation on 9 August 2013 for the winning and working of 2.5 million tonnes of sand and gravel over an 18-year period, with processing plant, new access and restoration using imported inert material to nature reserve, creation of lakes suitable for fishing and recreational purposes, and public access. • An area of land between the two proposed areas contains a sewage pumping station, with planning permission (6/1989/0080/DM) being granted in 1989. • A number of planning permission have been granted to land to the west of the proposed site allocation associated with the use of the land for Wolsingham Show Ground.
Environmental Designations:	The proposed site allocation is principally constrained by one environmental designation.
Landscape (Summary see, Appendix 1)	<p>The proposed sites lie within a local landscape designation. The site lies in an area identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan. The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Conservation Priority Area (LCPA) with a strategy of 'conserve and restore'.</p> <p>The landscape assessment of the site has advised that the working of the of reserves in this area would be likely to result in some significant effects on a valued landscape and localised significant visual effects during the operational period. Longer term effects would depend on the nature of the restoration but from the information provided would be likely to be low, neutral or beneficial. Through the planning application process an appraisal of impact on landscape and visual impact will be required.</p>
Biodiversity and Geodiversity	The proposed site allocation is not sited within any nationally or locally designated sites. The nearest designation is a Local Wildlife Site (LWS), Wiserley Hall LWS which lies approximately 180 metres to the southwest on the south bank of the River Wear opposite Wolsingham Showground. The impacts of dust onto these sites would need to be fully assessed and any necessary mitigation implemented. The restoration of the proposed allocation should complement the existing proposals for the restoration of the existing quarry which has been designed to provide biodiversity net gains and support coherent ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The restoration strategy should also aim to support the priorities of the

	Local Nature Recovery Strategy, delivering geo-diversity benefits where possible. A full ecological assessment will be required at the planning application stage.
Cultural Heritage (conclusion) (See MWDPD Heritage Impact Assessment for full details)	<p>Following consultation on the Draft Plan and comments received from Historic England a desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The assessment standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>Within 2km's of the subject site there no identified World Heritage Sites, Protected Wreck Sites, Registered Historic Park and Garden or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there is 1no conservation area, 1no scheduled monument, 21no listed buildings. Within 5km's of the site are 4no scheduled monuments and 5no listed buildings. The HIA also considered non-designated heritage assets in this area. Within 5km's of the site are 4no scheduled monuments, 5no Grade II* listed buildings and a number of non-designated heritage assets.</p> <p>The M&WDPD HIA concluded that the proposed workings would cause no harm to the significance (physical fabric) of any of the heritage assets identified, while the impact upon the setting of the majority of the heritage assets would either be nil or minor and not anticipated to be harmful. The impact within the setting of the group at Bradly Hall may potentially be low adverse, possibly mitigated by screening measures, future land restoration would change this to neutral in the longer term. However, should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>
Archaeology	The archaeological assessment of the existing Low Harperley sand and gravel permission concluded that the site and its surroundings are of very low archaeological sensitivity and working is very unlikely to encounter presently unknown archaeological remains. The archaeological potential at the site is therefore likely to be limited. Through the planning application process any site more than 1 hectare in size would need evaluation with subsequent mitigation (generally excavation and recording) if anything found.
Hydrogeology and Flood Risk	The site lies adjacent to the River Wear and Gallows Beck. The site is located within Flood Zone 3 and within a functional flood plain and is therefore at risk of flooding from the River Wear and its tributaries. Sand and gravel extraction, however, is defined by the Planning Practice Guidance (PPG) as a 'water-compatible development' although the PPG also advises that mineral working should not increase flood risk elsewhere and needs to be designed, worked and restored accordingly. It also advises that it may be possible to locate ancillary facilities

	<p>such as processing plant and offices in areas at lowest flood risk and that sequential working and restoration can be designed to reduce flood risk by providing flood storage and attenuation. The site is also within a ground water vulnerability area as identified by the Environment Agency where aquifers are vulnerable to pollution because of the type of soil cover. The proposed site allocation lies outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England.</p> <p>Breedon advise that within the existing Low Harperley site, mineral extraction is currently taking place below the groundwater level in the current permitted working areas and therefore pumped de-watering is necessary. However, the mineral in the proposed extension is much shallower in the proposed extension and therefore it is not clear whether and to what extent pumped de-watering will be required. Breedon also advise that the restoration of the site would provide an opportunity to deliver flood attenuation as part of restoration. Through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts from pollution on groundwater and surface water quality do not occur and that suitable mitigation measures are in place or can be implemented. Water management on site will need to monitor and manage both surface water and groundwater. Through the preparation of a planning application a hydrological assessment would be required. A flood risk assessment would also be required which should demonstrate that the proposal would not adversely decrease the existing flood plain during extraction works and the proposed restoration of the site will result in an increase in flood plain storage.</p>
Access and Traffic	<p>The quarry is currently accessed by a purpose made access off the A689 east of Bradley Burn Farm. Breedon have advised that there would be no adverse impact from quarry traffic as the existing access would continue to be used and as it is not intended to increase output from the site, the number of HGVs using it would not increase. The existing permission at the quarry is conditioned to an average of 86 vehicle movements (43 in /43 out). Note the Council assumes that if the site would be worked over 4 years and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this would result in 7,000 laden vehicle movements per annum (25 in and 25 out) per day from the proposed mineral extraction. This volume of traffic would be acceptable and should be able to be safely accommodated on the local highway network without any discernible environmental or amenity impacts on the surrounding road network, but this would need to be confirmed through any future planning application. Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions. Through the planning application process a Transport Assessment would be required.</p>

Amenity	Lying within the open countryside between Wolsingham and Crook the proposed allocation lies in rural area. A small number of residential properties lie approximately 350 metres to the northeast of the site and to the north of the A689 at Bradley Bridge and Bradley Hall. The closest properties lie to the south of the River Wear are Bradley Cottages, approximately 200 metres to the south. Wolsingham Show Ground also lies immediately adjacent to the western part of the proposed site. The principal effects of working on residential amenity would be in respect to visual impact, impacts from lighting, noise and dust. Through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not occur and that suitable mitigation measures are in place or can be implemented. Visual, noise and dust assessments would have to be undertaken as part of the preparation of any future planning application if the site were to be allocated.
Public Rights of Way	The eastern area of the proposed site allocation is crossed by a Public Rights of Way (PROW). It is crossed by a footpath in the east FP No 126 (Wolsingham Parish) and then this PROW runs to the south of the sewage treatment works and Weardale Railway to connect with FP No 128 (Wolsingham Parish) to the southwest of the showground. FP No 126 (Wolsingham Parish) would require a temporary or permanent diversion onto a convenient route to continue its connection over the Weardale Railway. Any adverse impacts on public enjoyment should be addressed and mitigated. A section of the Weardale Way runs along the south bank of the River Wear opposite the proposed allocation approximately 85 metres to the south. Should the site be allocated a diversion of the PROW would be required prior to the commencement of the development. Bridleway 128 (Wolsingham Parish) also runs along Crook Lane. Whilst this Public Bridleway is a cul-de-sac which currently terminates at the western site boundary of the existing Low Harperley permission, a permissive bridleway then continues from Low Harperley Farm to join with Bridleway No 128 at Crook Lane and FP No 126 (Wolsingham Parish) to the northwest of the site in accordance with the existing approved scheme at Low Harperley Quarry. It is considered that the permissive bridleway does provide a useful and welcome addition to the access network however it would be more valuable to have some of the permissive bridleways at Low Harperley dedicated as public bridleways. Views into the extension site will need to be addressed and satisfactorily mitigated from the Weardale Way any PROW which would be affected.
Agricultural Land	The proposed site allocation is believed to be grade 3 agricultural land. The proposal may therefore result in the loss of some good quality agricultural land (best and most versatile), however, this would need to be confirmed by any subsequent planning application. Through the preparation of a planning application an agricultural land classification statement would be required to assess the quality of the agricultural land. Should the site be allocated future planning applications would need to safeguard soil resources.

Cumulative Impacts	<p>The proposed site allocation lies within a rural area, and which is directly affected by only the existing Low Harperley Quarry which is being worked and restored in a phased manner over a sixteen-year working period together with two years for restoration. The proposed extension would prolong the impacts of working in this locality. The existing cumulative effect of quarrying activities on local character area is not substantial due to the long linear nature of the existing site and its progressive working and restoration. Impacts of the proposed allocation would depend in part on the extent and phasing of extraction operations, the development of screening measures, and the extent and phasing of progressive restoration. The impact on the rural character of the local landscape could be high in some views particularly from higher ground where mitigation would be difficult and low in others subject to those factors. There would be some cumulative effects with the existing workings. In terms of ecological impacts, the absence of designated sites in the locality and the more remote location of the proposed site allocation means that the cumulative effect of quarrying on ecological sites is minimal. In terms of cultural heritage, while there are a number of designated sites in the wider locality these are at some distance from the proposed allocation but locally concentrated around Bradley Hall/Bradley Bridge. The cumulative impacts of traffic and transport is also a key consideration, however as outlined above HGVs would use the purpose made access off the A689 east of Bradley Burn Farm and it is not intended to increase output from the site, the number of HGVs using it would not increase. The potential for significant cumulative effects in combination with the existing quarry is not anticipated but there would be some cumulative effects.</p>
Locational Approach to the Future Supply of Primary Aggregates	<p>It is considered that this proposal complies with the general requirements of County Durham Plan Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). The proposed site falls outside of and does not adversely affect the North Pennines Area of Outstanding Natural Beauty (AONB), the County Durham Heritage Coast, or upon the County's Parks and Gardens of Special Historic Interest, Historic Battlefield, Conservation Areas and Scheduled Ancient Monuments. Similarly, the site does not either contain or could adversely affect internationally and nationally designated sites and irreplaceable habitats. However, the site allocation also needs to be considered in relation to the locational approach to sand and gravel working as established by County Durham Plan Policy 50. The locational approach to sand and gravel working seeks to first prioritise proposals for basal Permian sand extraction from beneath the floor of existing magnesian limestone quarries, followed by the lateral extension of existing magnesian limestone quarries, and then followed by new sand and gravel quarries outside of environmentally important areas. Given that the site lies within an Area of Higher Landscape Value it is considered to fall within an environmentally important area.</p>
Need and Economic Factors	<p>The Planning Practice Guidance advises that in considering proposals for new sites and extensions to existing sites that it is important to consider the need for the mineral. It is considered that need should be considered at a County level, by resource type (i.e. magnesian limestone, carboniferous limestone or dolerite (the three types of</p>

crushed rock extracted from quarries within County Durham) or by sand and gravel) and that consideration should be given to the distribution of permitted reserves across sites within the County and the extent of permitted reserves within a particular sites and the scale of sales that the site has achieved in the past or could reasonably achieve in the future.

Sand and Gravel

At a County level the Joint Local Aggregate Assessment for County Durham, Northumberland and Tyne and Wear (April 2022) (Joint LAA) recommended that the Council seeks to make additional provision to maintain supply and also to maintain an appropriate landbank over the long-term and that this should be achieved by the Council seeking to allocate land for longer term working in the Council's forthcoming Minerals and Waste Policies and Allocations Document. In addition, it also recommended that in doing so, that any future allocations and permissions seek to ensure that productive capacity is maintained and that permitted reserves do not become concentrated within a small number of sites. In terms of the overall scale of additional provision that is required to be made, the Joint LAA advised that in order to maintain a seven-year landbank at 2035, it is advised that provision is made to enable a further 5.059 million tonnes of sand and gravel to be extracted over the period to 2035. These calculations were based on reported permitted reserves of 5.247 million tonnes on 31.12.20 which was equivalent to a landbank of 11.98 years. In terms of overall sand and gravel supply in the period to 2035, the Joint LAA indicated a demand forecast of 6.57 million tonnes and a balance between supply and demand of -1,323 million tonnes. The Joint LAA advised that, as indicated by the balance between supply and demand the Council will not be able to maintain a minimum seven-year landbank after 2025, which is a key indicator that further provision is now necessary to be planned for.

Low Harperley is still a relatively new quarry, whilst planning permission was granted in 2013, development of the quarry began in 2016 and sand and gravel sales only commenced sales in 2017. At a site level the Joint LAA (2022) estimated that the quarry contained 1,900,000 tonnes of sand on the 31.12.20. The Joint LAA (2022) estimated that the site had a maximum productive capacity of 200,000 tonnes per annum but when commenting on future supply advised that based upon remaining permitted services and the planning permission end date future extraction anticipated to be approximately 160,000 tonnes until 2032. Considering the reported extent of permitted reserves of sand within Low Harperley, which is very healthy and the planning permission end date, which is towards the end of the Plan period, it is considered that there is not a need for a further allocation at this site at this time. This is because this site should be able to make a steady and adequate contribution to sand and gravel supply over the majority of the Plan Period without the need for further permitted reserves. This position

	<p>will be monitored through the Councils Local Aggregate Assessment. In addition, it is considered that their other sites where allocations would be more beneficial to ensuring the steady and adequate supply of sand and gravel and the maintenance of productive capacity. However, it is acknowledged that there may be longer term supply benefits to the working of this land as it could allow the full recovery of sand and gravel in this part of the River Wear as part of one continuous mineral working operation and would enable the utilisation of existing site access and plant infrastructure and help maintain both direct and indirect employment associated with the winning and working of minerals throughout the life of the scheme. Bearing in mind NPPF requirements to maintain a steady and adequate supply it is considered a decision which would be best made towards the end of the decade taking into account the findings of future Joint LAAs.</p> <p>Should the site be allocated there would also continue to be opportunities for businesses, including local companies to supply goods and services throughout the life of the proposed allocation, most of which would fall within the Plan period.</p>
Conclusion	<p>The proposed site extension to Low Harperley should not be allocated within the Minerals and Waste Policies and Allocations document. It is considered that there is not a need for a further allocation at this site at this time. This is because the extent of permitted reserves of sand within the existing Low Harperley is very healthy and should be able to make a steady and adequate contribution to sand and gravel supply over the majority of the Plan Period without the need for any further permitted reserves. While it is acknowledged that there may be longer term supply benefits to the working of this land as it could allow the full recovery of sand and gravel in this part of the River Wear, given the extent of remaining permitted reserves, this is not a matter upon which a decision is not required to be now made. Considering the overall distribution of remaining permitted reserves of sand and gravel across County Durham's sand and gravel quarries, planning permission end dates or forecasts as to when permitted reserves may become exhausted it is considered that their other sites where allocations would be more beneficial to ensuring the steady and adequate supply of sand and gravel and the maintenance of productive capacity.</p> <p>In terms of the locational approach to future sand and gravel working as established by the County Durham Plan this site is not sequentially preferable as it is not consistent with the locational approach to sand and gravel working as established by Policy 50. The locational approach to sand and gravel working seeks to first prioritise proposals for basal Permian sand extraction from beneath the floor of existing magnesian limestone quarries, followed by the lateral extension of existing magnesian limestone quarries, and then followed by new sand and gravel quarries outside of environmentally important areas. Given that the site lies within an Area of Higher</p>

	<p>Landscape Value it is considered to fall within an environmentally important area. Furthermore, the landscape assessment of the site has advised that the working of the of reserves in this area would be likely to result in some significant effects on a valued landscape and localised significant visual effects during the operational period. While lying in a rural area the site would lie closer to Wolsingham than the existing Low Harperley site and could result in greater amenity impacts than those that currently occur.</p>
--	--

Map 6 – Low Harperley Proposed Extension

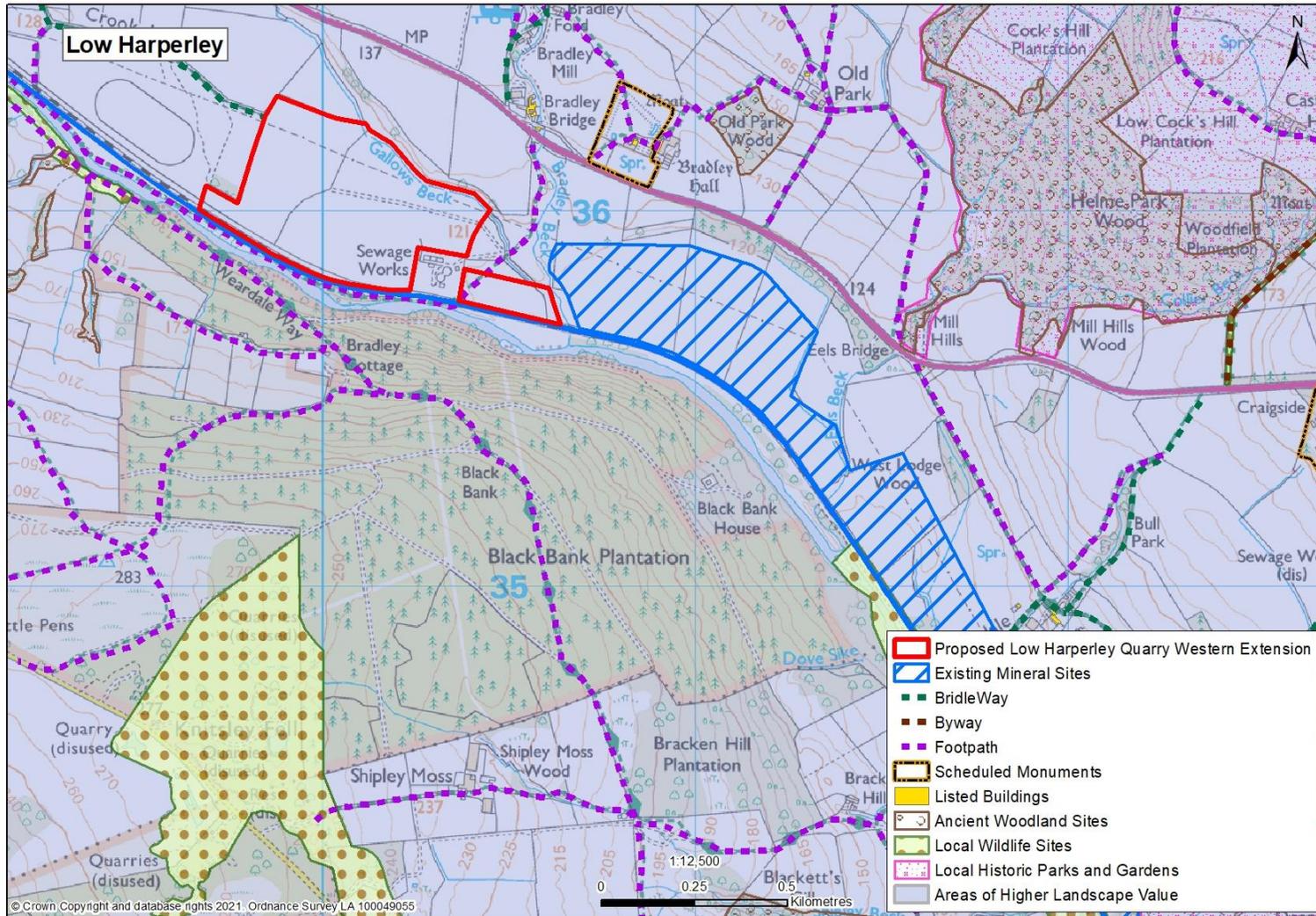


Table 9: Site M6 Thrislington West Quarry - Allocation of additional Permian Sand

Proposed Operator:	Tarmac
Location:	Thrislington West Quarry is a large magnesian limestone and basal Permian sand quarry (covering some 153 hectares) located on the Magnesian Limestone Escarpment to the south of West Cornforth and east of Ferryhill. Garmondsway Road and Stobbs Cross Road in West Cornforth border the quarry to the north, the A1(M) borders the quarry to the east with Thrislington East Quarry beyond and the minor C69 road borders the quarry to the west. Thrislington Plantation Special Area of Conservation (SAC), Thrislington Plantation Site of Special Scientific Interest (SSSI) and Thrislington National Nature Reserve (NNR), the former Rough Furze Quarry County Wildlife Site (CWS) and agricultural land border the quarry to the south.
Allocation area:	The proposed site allocation covers an area of nearly 18.5 hectares within the eastern part of the operational quarry void, to the west of the A1(M).
Mineral to be Extracted and proposed works:	The potential mineral reserve is estimated at 5,800,000 tonnes of basal Permian sand. Tarmac propose that the mineral would be extracted as a continuation of existing sand extraction operations within the quarry over a twenty-year period at rate of up to 300,000 tonnes per annum. Tarmac advises that the currently permitted sand reserves at Thrislington West Quarry are expected to be exhausted by 2025 meaning and that the resulting end date depending upon annual sales, would be circa 2045.
Current Land use:	Operational quarry void of existing magnesian limestone and sand quarry.
Development Plan History:	This part of Thrislington West Quarry has not been subject to a Local Plan allocation. Two areas of land one to the south of the existing quarry west of the A1(M) and one to the east of the A1(M) had previously been allocated under Policy M55 (A Southern Extension to Thrislington Quarry) and Policy M56 (An Eastern Extension to Thrislington Quarry) in the County Durham Minerals Local Plan (CDMLP). Both of these former allocations were made to enable the continued extraction of high-grade dolomitic limestone, to be used in the steel and chemical industry. In addition, an area of land within the Thrislington West Quarry was allocated for waste development under Policy W58 of the County Durham Waste Local Plan (CDWLP). The CDMLP and CDWLP plan allocations have now expired upon adoption of the County Durham Plan. Land within Thrislington West Quarry for further basal Permian sand extraction was proposed as an allocation in 2016. The extension was not, however, a site which the Council favoured as an allocation in the County Durham Plan which was adopted in October 2020.

<p>Development Management History (Summary)</p>	<ul style="list-style-type: none"> Quarrying of high grade magnesian limestone commenced at Thrislington Quarry in 1954 and between 1953 and 2018 a number of planning permissions for high grade magnesian limestone and other minerals (including basal Permian sand and mudstone). An updated schedule of planning conditions for the working and restoration of the quarry were issued in January 2002 which required mineral extraction to cease on 18 January 2015. In 2015 an application was submitted to provide for the extraction of remaining limestone reserves and revised working area for extraction of Basal Permian Sand for 15 years until 2030, together with a scheme for the progressive and final restoration of the site. This application was considered in October 2017 and planning permission was issued in December 2018.
<p>Environmental Designations:</p>	<p>The proposed allocation or quarry are not overlain by any environmental designations.</p>
<p>Landscape (Summary see, Appendix 1)</p>	<p>The proposed allocation is not covered by any national or local landscape designations. Land to the south and west is identified as Area of Higher Landscape Value (AHLV) in the County Durham Plan. The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.</p> <p>The landscape assessment of the site which has been undertaken has advised that the working of reserves in this area would be unlikely to result in any significant landscape or visual effects. Through the planning application process an appraisal of impact on landscape and visual impact will be required.</p>
<p>Biodiversity and Geodiversity</p>	<p>There are a number of designated nature conservation sites in close proximity to Thrislington West Quarry. Immediately to the south of the quarry are Thrislington Plantation Special Area of Conservation (SAC) and Thrislington National Nature Reserve (NNR). Within 1 km from the quarry are the Carrs Site of Special Scientific Interest (SSSI) and Bishop Middleham Quarry SSSI with Raisby Hill Grassland SSSI within 2 km. There are a number of Local Wildlife Sites (LWS) within approximately 400 metres from the quarry: Thrislington Quarry Local Geology Site (LGS) lies to the west of the quarry and Rough Furze Local Wildlife (LWS) and LGS lies nearby directly to the south of Thrislington SAC, NNR and SSSI. The County Ecologist has considered the site allocation in relation to Thrislington SAC and the risk of impact on the integrity of the European site has been adequately ruled out. Similarly, it is not considered unlikely that the proposed site allocation will have an unacceptable adverse impact on other designated sites. A full ecological assessment of the site would also be expected at the planning application stage. The restoration of the proposed allocation should complement the existing proposals for the restoration of the existing quarry and should provide biodiversity net gains and support coherent ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The</p>

	restoration strategy should also aim to support the priorities of the Local Nature Recovery Strategy, delivering geo-diversity benefits where possible.
Cultural Heritage (conclusion) (See MWDPD Heritage Impact Assessment for full details)	<p>Following consultation on the Draft Plan and comments received from Historic England a desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Protected Wreck Sites, Registered Historic Park and Garden or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there is 1no Scheduled Monument, and 20no listed buildings. These have been categorised into 3no groups for ease of assessment based upon locations, levels of significance, historic associations, key visual receptors, relevance in terms of proximity, and equivalent levels of impacts. The listed buildings are within Cornforth, Bishop Middleham and Ferryhill settlements. 3no Conservation Areas have been identified, Cornforth, Bishop Middleham and Mainsforth, requiring detailed assessment. Within the immediate surroundings of the subject site there no known NDHAs identified, there is 1 no archaeological heritage feature identified within Durham County Councils Historic Environment Record (H.E.R). At a radius of 5km from the subject site, 8no Scheduled Monuments, 2no Grade I and 2no Grade II* listed building have been identified.</p> <p>The M&WDPD HIA concluded that the proposed additional extractions would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The impact upon the setting(s) of the heritage assets identified would be nil and neutral. As no harm has been identified those settings would be conserved. However, should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>
Archaeology	Due to the location of the proposed site allocations the site has no archaeological potential.
Hydrogeology and Flood Risk	The site lies on the Magnesian Limestone Escarpment which is a principal aquifer and the basal Permian sand forms part of the principal aquifer. The north-eastern extent of the proposed site falls within Groundwater Source Protection Area 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). The groundwater body fails Water Framework Directive for Nitrate in this area. The proposed site allocation lies within the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. It is however considered that this site allocation can delivered without causing additional nutrient enriched water to enter the

	<p>designated site. This is because the site is not agricultural land. Lying within the quarry void there are no nutrient enriched soils to be removed or stockpiled and therefore there is no risk of nutrients leaching out into surface and groundwater or issues associated with any run-off from soils. It is envisaged that water within the quarry void will be managed as existing. The proposed site lies in Flood Zone 1 and therefore the proposed extension has a low probability of flooding. It is understood that dewatering is undertaken within the current quarry and the potential reserves may be below the water table. The main environmental risk of the site allocation is the loss of part of the Principal Aquifer through the extraction of the basal Permian sand resource. There is uncertainty as to what impact that the further deepening of the existing quarry may have on the water table and quality and quantity of groundwater. Any planning application will need to demonstrate that unacceptable adverse impacts on groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented and that local private water supply is not derogated in either quality or quantity. Water management on site will need to monitor and manage both surface water and groundwater. Through the preparation of a planning application detailed hydrological and hydrogeological investigation and risk assessment would be required.</p>
<p>Access and Traffic</p>	<p>Thrislington West Quarry is currently served by two vehicular accesses and a rail head which links with the East Coast Main Line. Quarry traffic routing arrangements seek to keep lorry traffic out of the communities of Cornforth, Bishop Middleham, and Ferryhill. Entrance 1 is located to the west of the A1(M) on the road C69. Entrance 2 is located to the north on Garmondsway Road. No vehicles associated with extraction operations at Thrislington West Quarry enter or leave the site via Entrance 2 onto Stobb Cross Lane. Tarmac proposes to maintain existing accesses, routing and transport movements to and from Thrislington West Quarry. The existing planning obligation seeks to control lorry routing. HGVs leaving the site at Entrance 1 are required to turn left onto the C69 and travel north before joining the A177/A688 at Metal Bridge.</p> <p>Traffic volumes associated with Thrislington West Quarry are expected to fall in the future compared with historic levels. This is due to the cessation of crushed rock sales as permitted reserves of crushed rock will become exhausted and as crushed rock production commences within other quarries in Tarmac's ownership to compensate for the fall in sales from Thrislington West Quarry and Thrislington East Quarry. Subject to the traffic and transportation impacts of the proposed development being compatible with the existing operations/traffic, impacts on the local and strategic highway network should be acceptable but this would need to be confirmed through any future planning application if the site were to be allocated and at this stage a transport assessment would be required. (Note the Council assumes that if the site would be worked over 20 years and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this would result in 11,600</p>

	<p>laden vehicle movements per annum (42 in and 42 out per day) from the proposed mineral extraction). Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions.</p> <p>National Highways have requested that the site allocations should consider the minimisation of trip generation at source. Given that minerals can only be worked where they are found it is considered that the scope for the minimisation of trip generation are limited. However, the key feature of Thrislington West Quarry which may minimise trip generation is that the quarry is connected to the East Coast Mainline (via spur and rail loading facility) which provides opportunities for the long-distance transport of aggregates to locations geographically distant from County Durham by rail. Previously Tarmac have advised that a proportion of the Basal Permian sand is likely to be transported from the site via the existing railhead and this remains a prospect in the future.</p>
Amenity	<p>Thrislington West Quarry lies immediately south of Cornforth and West Cornforth. The closest properties to the proposed site allocation are along Garmondsway Road. However, the proposed site allocation lies within and at the base of the void of the quarry and the ground between the quarry void and houses is occupied by large, landscaped screening mounds. At its closest point, the permitted extraction area, which has already been worked is further than 250 metres away from these houses, and the boundary of the proposed site allocation is approximately 300 metres away. Tarmac currently undertakes blasting in order to gain access to the sand worked elsewhere in the quarry. Blasting is currently permitted at the existing quarry up to 3 times per day and the timings, number of blasts and blast levels are controlled through planning condition. It is expected that amenity impacts including that from noise, dust and blasting impacts would be similar to that resulting from the existing sand extraction operations and it is considered that unacceptable adverse impacts on local amenity would not occur. However, should the site be allocated noise, dust and blasting impact assessments would have to be undertaken as part of the preparation of any future planning application to assess and confirm amenity impacts.</p>
Public Rights of Way	<p>Established Public Rights of Way (PROW) lie around the margins of the existing quarry void at the quarry, the nearest being FP No 25 (Cornforth Parish) and FP No 21 (Bishop Middleham Parish), which lie to the immediate east of the quarry and west of the A1(M). It is considered that they are unlikely to be affected any more than present by additional extraction operations although some mitigation may be required. No alleged public rights of way are affected by the allocation.</p>
Agricultural Land	<p>Not applicable. The proposed site allocation area is a quarry void.</p>

<p>Cumulative Impacts</p>	<p>This part of County Durham has been subject to extensive mineral working in the past and there are a number of existing quarries (both active and inactive) and former quarries in the immediate vicinity of the proposed site allocation at Thrislington West Quarry. These include Joint Stocks Quarry 2.3 km to the north a former quarry currently being restored through tipping of inert waste. Old Quarrington and Cold Knuckles Quarries 4 km to the northeast. Raisby Quarry lies approximately 2 km to the northeast and produces limestone. To the north of Garmondsway Road lie both Cornforth West Quarry and to the east of the A1(M) Cornforth East Quarry (both currently inactive), Thrislington East Quarry immediately to the east of the A1(M) (with planning permission for mineral extraction until 1 July 2045), Bishop Middleham Quarry and extension some 70 metres to the southeast to the east of the A1(M) (mineral extraction until 2029 with restoration by means of inert waste disposal by 11 June 2052). Highland House former waste disposal site lies 540 metres to the east. In addition, a former mineral site, Rough Furze Quarry, lies immediately to the south (this permission was relinquished through a legal agreement as part of the Thrislington East Quarry planning permission). Chilton Quarry, a restored site, is approximately 1 km to the southwest.</p> <p>The potential for cumulative impacts from mineral working at Thrislington West Quarry were last comprehensively considered by the Council in 2018 when Tarmac's planning application (DM/15/00127/MIN) to extend the time period for its working and the recovery of 2.4 million tonnes of Basal Permian sand and 5.4 million tonnes of magnesian limestone over the period to was considered and approved. The Committee report that members considered advised that, "The ES concludes that no significant cumulative effects would occur with other quarry sites in the area. With respect to the potential for the effects from the proposed development to combine to cause cumulative adverse negative effects, receptors that have been considered in the amenity topics (specifically visual, blasting, noise, air quality and traffic) have been considered. The assessment has concluded that no significant cumulative effects would arise from the proposed development." The Committee report concluded that there has been a succession of mineral and waste operations within the vicinity of the application site that have affected the environmental character and quality of the local area and perceptions of it, and sites still with the potential to be worked. The combined effects of working any large-scale excavation may in itself also have some cumulative impacts on environmental and living conditions and the perceptions of those within the vicinity of the area. The effects of the existing quarry are effectively mitigated, and this would continue. Since this previous planning application was determined the only material differences are that:</p> <ol style="list-style-type: none"> 1) the existing permitted reserves of sand at Thrislington West Quarry are now expected to be exhausted by 2025, which is why this allocation is now being proposed to enable continuity of supply; and
---------------------------	---

	<p>2) Tarmac’s proposals (DM/18/03884/VOCMW) which is still pending consideration to vary the planning permission at Thrislington East (7/2006/0179CM (DCC Reference: CMA/7/55) to allow a change to the working method and working hours for Phase 2 and variation to the associated S106 agreement in terms of the percentage of High-Grade Dolomite removed from the site.</p> <p>3) Two Environment Act 1995: Periodic Review of Mining Sites. Planning applications for the determination of new planning conditions for working and restoration of Cornforth West Quarry and Cornforth East Quarry were submitted in 2019 and are pending consideration. Subject to new conditions being granted it is anticipated that these sites will be worked in turn and replace the aggregates which the operator of the site had originally anticipated to be produced from Thrislington East Quarry.</p> <p>The effect of the proposal to vary the planning permission at Thrislington East Quarry has been to allow Tarmac to continue to extract approximately 2 million tonnes of magnesian limestone for aggregate purposes in the north-western part of Thrislington East Quarry and has provided time to enable the submission and consideration of planning applications, to enable new schemes of mineral working at Cornforth West and Cornforth East Quarry’s. The working of the aggregate grade magnesian limestone at Thrislington East will cease within the next year when working at Cornforth West Quarry is expected to resume. Currently there is still significant uncertainty as to whether or when market need for the high grade dolomite previously extracted from Thrislington East Quarry, but currently no working is expected in the medium to long term due to the need for this material being met by other quarries in the UK, it is therefore expected that this site will be mothballed with an interim restoration in place for the majority if not all of the Plan period. Accordingly, this will minimise the environmental effects of mineral working in the locality as Thrislington East Quarry is unlikely to be worked for the foreseeable future.</p> <p>Should the proposed site be allocated it will change the location of sand extraction within the void of Thrislington West Quarry and extend its operation to 2045 and the existing operational effects at the quarry. It will enable the recovery of additional permitted reserves which will require the impact of working on the water environment to be considered, but this can only be considered through the submission of a planning application accompanied by a detailed hydrological and hydrogeological investigation and risk assessment. However, in overall terms it is not expected that significant cumulative adverse impacts would occur.</p>
Locational Approach to the Future	It is considered that this allocation complies with the requirements of CDP Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). The site falls outside of and not adversely affect the North Pennines Area of Outstanding Natural Beauty (AONB), the County Durham Heritage Coast, or upon the County's Parks and

Supply of Primary Aggregates	Gardens of Special Historic Interest, Historic Battlefield, Conservation Areas and Scheduled Ancient Monuments. The site does not either contain or could adversely affect internationally and nationally designated sites and irreplaceable habitats. The site proposal is also highly consistent with the locational approach to sand and gravel working as established by Policy 50, which first seeks to prioritise proposals for basal Permian sand extraction from beneath the floor of existing magnesian limestone quarries, followed by the lateral extension of existing magnesian limestone quarries, and then followed by new sand and gravel quarries outside of environmentally important areas. Working within a quarry void the site proposal is not located on a prominent escarpment slope.
Need and Economic Factors	<p>The Planning Practice Guidance advises that in considering proposals for new sites and extensions to existing sites it is important to consider the need for the mineral. It is considered that need should be considered at a County level, by resource type (i.e. magnesian limestone, carboniferous limestone or dolerite (the three types of crushed rock extracted from quarries within County Durham) or by sand and gravel) and that consideration should be given to the distribution of permitted reserves across sites within the County and the extent of permitted reserves within a particular sites and the scale of sales that the site has achieved in the past or could reasonably achieve in the future.</p> <p><u>Sand and Gravel</u></p> <p>At a County level the Joint Local Aggregate Assessment for County Durham, Northumberland and Tyne and Wear (2022) (Joint LAA) recommended that the Council seeks to make additional provision to maintain supply and also to maintain an appropriate landbank over the long-term and that this should be achieved by the Council seeking to allocate land for longer term working in the Council's forthcoming Minerals and Waste Policies and Allocations Document. In addition, it also recommended that in doing so, that any future allocations and permissions seek to ensure that productive capacity is maintained and that permitted reserves do not become concentrated within a small number of sites.</p> <p>In terms of the overall scale of additional provision that is required to be made, the Joint LAA (2022) advised that in order to maintain a seven-year landbank at 2035, it is recommended that provision is made to enable a further 5.059 million tonnes of sand and gravel to be extracted over the period to 2035. These calculations were based on reported permitted reserves of 5.427 million tonnes on 31.12.20 which was equivalent to a landbank of 11.98 years. In terms of overall sand and gravel supply in the period to 2035, the Joint LAA indicated a demand forecast of 6.57 million tonnes and a balance between supply and demand of -1.323 million tonnes. The Joint LAA advised that, as indicated by the balance between supply and demand the Council will not be able to</p>

maintain a minimum seven-year landbank after 2025, which is a key indicator that further provision is now necessary to be planned for.

In terms of Thrislington West Quarry at a site level the Joint LAA (2022) reported that the quarry contained 1,146,000 tonnes of sand on the 31.12.20 and estimated that the quarry had a productive capacity of 200,000 per annum. The Joint LAA anticipated that future extraction to be around 200,000 tonnes per annum which could mean that permitted reserves could be exhausted by 2025. Through the site submission for the M&WDPD the operator submission has advised that they believe that permitted reserves would be exhausted by 2025. This timeline is accepted.

For many years and until Low Harperley Quarry commenced sand and gravel production, Thrislington West Quarry has been together with Crime Rigg Quarry and Old Quarrington and Cold Knuckle Quarry one of only three sand producing quarries in the County and for many years its sales had comprised the major component of the County's sales. Give the limited extent of permitted reserves of basal Permian sand within Thrislington West Quarry, it is considered necessary for further permitted reserves to be made available at this quarry to enable this site to continue in operation and to continue to contribute to a steady and adequate supply of sand and gravel beyond the short term. Without further permitted reserves the mineral extraction at Thrislington West Quarry would cease, productive capacity would be lost and permitted reserves would become concentrated within a smaller number of sites i.e., both Crime Rigg Quarry and Old Quarrington Quarry (whose own future working are also dependent upon allocations being made and planning permissions been granted) and Low Harperley which has permission to 2032 (whose operator has also sought an allocation). Should the site be allocated, taking into account the operators proposed rate of sand working, Thrislington West Quarry would contribute initially up to 200,000 tonnes of sand (to create 300,000 tonnes of sand and sand products when a proportion of the basal Permian sand is combined with limestone fines to create a Midas sand) and eventually up to 300,000 tonnes of sand (once the limestone is exhausted) over the Plan period to 2035, and contribute to maintaining a seven-year landbank at 2035. In contrast to the proposed allocations at both Crime Rigg Quarry and Old Quarrington Quarry, given that the overlying magnesian limestone has already been removed the sand within the site has the advantage of being more readily accessible.

The proposal would provide for both direct and indirect employment associated with the winning and working of minerals throughout the life of the proposed allocation. There would also continue to be opportunities for businesses, including local companies to supply goods and services throughout the life of the site allocation.

<p>Conclusion</p>	<p>The proposed area for further working at Thrislington West Quarry should be allocated within the Minerals and Waste Policies and Allocations document. It is considered that there is a need for a further allocation at this site at this time. This is because Thrislington West Quarry will not be able to make a steady and adequate contribution to sand and gravel supply beyond the short term i.e., after 2025 without the need for further permitted reserves. Taking into account the overall distribution of remaining permitted reserves of sand and gravel across County Durham's sand and gravel quarry's, planning permission end dates and/or forecasts as to when permitted reserves may become exhausted it is considered that this site should be prioritised for an allocation as it would be more beneficial than other sites to ensuring the steady and adequate supply of sand and gravel and the maintenance of productive capacity. Without further permitted reserves the mineral extraction at Thrislington Quarry West would cease, productive capacity would be lost and permitted reserves would become concentrated within a smaller number of sites. The proposed allocation would contribute to both meeting the identified need for sand and gravel to 2035. Its permitted reserves would also contribute to the maintenance of a minimum seven-year sand and gravel landbank at 2035. Sales from the site would provide up to 300,000 tonnes of sand per annum and would thereby contributing to a steady and adequate supply of sand and gravel. Taking into account the overall distribution of remaining permitted reserves of sand and gravel across County Durham's sand and gravel quarry's, planning permission end dates and/or forecasts as to when permitted reserves may become exhausted it is considered that this site should be prioritised for an allocation as it would be more beneficial than other sites to ensuring the steady and adequate supply of sand and gravel and the maintenance of productive capacity.</p> <p>In terms of the locational approach to future sand and gravel working as established by the County Durham Plan this site is sequentially preferable as it is consistent with the locational approach to sand and gravel working as established by Policy 50. The quarry void is not overlain by any environmental designation and the working of reserves in this area would be unlikely to result in any significant landscape or visual effects and would in effect be a continuation of existing working within the quarry utilising existing plant and infrastructure and site access.</p>
-------------------	--

Map 7 - Thrislington West Quarry - Allocation of additional Basal Permian Sand

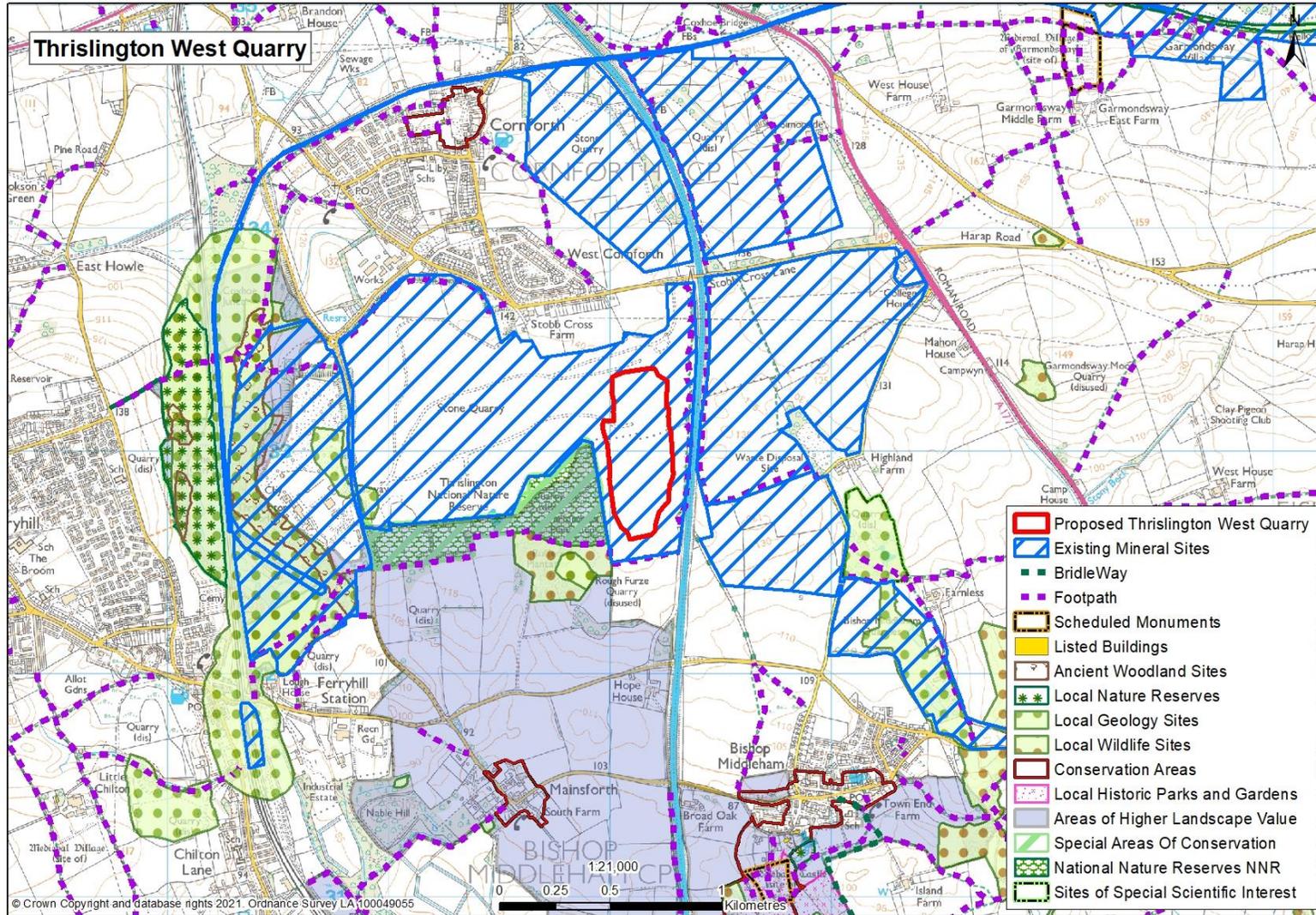


Table 10: Site M8/W2 Cold Knuckle Magnesian Limestone and inert infill

Proposed Operator:	Tarmac
Location:	Cold Knuckle Quarry is located on the Magnesian Limestone Escarpment 1 km to the east of Bowburn between the hamlet of Old Quarrington and Quarrington Hill. It forms part a larger quarry known as Old Quarrington and Cold Knuckle Quarry which through previous planning permissions is now in effect being worked as one site. Cold Knuckle Quarry lies immediately to the south of Old Quarrington Quarry. It connects to Old Quarrington Quarry at its western end and occupies a prominent position on the escarpment lying on the southern edge of the spur between Cassop Vale and Old Quarrington Vale.
Allocation area:	The proposed site allocation extends to approximately 10.6 hectares and lies on the southern edge of the spur between Cassop Vale and Old Quarrington Vale. It is made up of currently operational areas of the Old Quarrington Quarry including parts of the unrestored former Cold Knuckles Quarry. To the north lies further areas of operational quarry. To the south lies an area of former mineral workings now managed as a Local Nature Reserve (LNR).
Mineral to be extracted / waste to be disposed	<p>Tarmac’s submission explained that they wish to obtain an allocation which would then enable the extraction and sale of 900,000 tonnes of magnesian limestone which would otherwise be set aside and used to achieve the previously approved restoration profile at Cold Knuckle Quarry. Tarmac explained that this will avoid the limestones sterilisation, make use of existing on-site infrastructure and contribute to the economy whilst also having a modest impact on the crushed rock landbank and refer to a fall in the landbank in recent years.</p> <p>Tarmac’s submission also explains that they wish to import 400,000 cubic metres (which equates to approximately 600,000 tonnes) of inert waste for use in the reconstruction the escarpment face and extend the existing landfill operation at Old Quarrington Quarry into Cold Knuckle Quarry with the aim of providing suitable material to replace the 900,000 tonnes of magnesian limestone. They advise that this additional void space capacity would help accommodate some of the 623,300 annual tonnes of construction and demolition arisings estimated for County Durham.</p> <p>Tarmac have advised on phasing of the permitted mineral extraction and inert fill within the proposed southern allocation. They have explained that the phasing of the combined proposed mineral extraction and infilling works within the southern site is split into phases 2 to 5 whilst phase 6 is the final infill phase for the current plant site area and ancillary operational areas. Phase 6 will not be restored using inert fill until Quarrington North has been extracted as it will continue to serve as the area in which the weighbridge and other ancillary operations will</p>

	continue. Tarmac have advised that the proposed scheme of works proposed through this allocation would intend to be completed by 2033.
Current Land use:	The proposed site allocation is an operational quarry.
Development Plan History:	The proposed site allocation has not been previously nominated for an allocation.
Development Management History (Summary)	<ul style="list-style-type: none"> Quarrying operations were first granted planning permission at Old Quarrington Quarry in 1952, and permissions granted since have allowed for Permian sand and magnesian limestone to be extracted in combination in the southern part of the quarry, although sand extraction is not permitted in the northern part of the larger permission area. Planning permission was granted in 1987 provided for the restoration of the excavation created in the southern part of Old Quarrington Quarry by landfilling with construction waste materials and this is operated as an Inert Landfill. The permitted area for mineral extraction at Old Quarrington and Cold Knuckle Quarries is some 81 hectares in total. Planning permission was granted in 2011 for the re-establishment of secondary aggregate recycling facility (8/CMA/4/49) in the southern part of Old Quarrington quarry. Planning permission was granted in 2012 for four planning applications by the County Planning Committee in 2011. These related to the initial review of old planning permissions under the requirements of the Environment Act 1995 for the working and restoration at Old Quarrington Quarry (8/MRA/4/1(1)); an extension to Cold Knuckle Quarry (8/CMA/4/47) and the variation of Condition 7 of planning permission No. 4/86/456CM to extend the period of mineral extraction until 3 July 2025 (8/CMA/4/48). In 2019 three planning applications (DM/19/01133/VOCMW, DM/19/01134/VOCMW and DM/19/01135/VOCMW) were submitted which proposed a revised method of working the Cold Knuckle escarpment and the relocation of an area of habitat creation by varying planning permissions MRA/4/1/(1), CMA/4/47 and CMA/4/48. These applications were agreed in 2020 but are subject to a legal agreement which is currently in preparation.
Environmental Designations:	The proposed allocation is overlain by two local designations.
Landscape (Summary see, Appendix 1)	The site is not covered by any national or local landscape designations. The site lies partly within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance' and partly within a Landscape Conservation Priority Area (LCPA) with strategy of 'conserve & restore'.

	<p>The landscape assessment of the site which has been undertaken has advised that the working of reserves in this area would be unlikely to result in significant landscape and visual effects subject to detailed design.</p>
<p>Biodiversity and Geodiversity</p>	<p>Two nationally designated sites overlie the larger planning permission area. Cassop Vale Site of Special Scientific Interest (SSSI) and Cassop National Nature Reserve (NNR) and areas of ancient woodland lie 250 metres to the north of the proposed site allocation and Quarrington Hill Grasslands SSSI lies 286 metres to the south of the currently permitted quarry. There are no immediate potential impacts on the SSSIs or NNR and Natural England have been consulted and have not raised any concerns. Two local biodiversity and geodiversity designations overlie the proposed site allocation, Old Quarrington Quarry Local Geology Site (LGS) and Quarrington Hill & Coxhoe Bank Plantation Local Wildlife Site (LWS). However, the proposed site allocation is an operational quarry and the impact of previously permitted proposals on locally designated sites and species have previously been considered by the Council and have been found to be acceptable in the context of the existing permitted operations. When considered in 2012 the Council concluded that there would be a loss of habitat and disturbance in the short and medium term but with mitigation measures proposed it is not considered that there would be a significant impact upon the conservation status of the site in the medium to long term and on balance of biodiversity issues, it was concluded that the proposed benefits within a comprehensive programme of restoration and management, would outweigh any adverse impacts that working would have on the existing ecology of the area. Should the site be allocated restoration should complement the existing proposals for the restoration of the existing quarry which has been designed to provide biodiversity net gains and support coherent ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The restoration strategy should also aim to support the priorities of the Local Nature Recovery Strategy, delivering geo-diversity benefits where possible.</p>
<p>Cultural Heritage (conclusion) (See MWDPD Heritage Impact Assessment for full details)</p>	<p>Following consultation on the Draft Plan and comments received from Historic England a desk-based Heritage Impact Assessment was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Scheduled Monuments, Protected Wreck Sites, Registered Historic Park and Garden, or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there is 1no</p>

	<p>Grade II listed building and 2 conservation areas requiring detailed assessment. There are 4no records held on Durham County Councils Historic Environment Record (H.E.R) in and around the existing quarry site. A further 4 sites have been identified as potential NDHAs falling within the setting of the subject site. These relate to buildings/features identifiable on the 1st edition Ordnance Survey map c.1860. The impact on the setting of one site included on the local list of historic parks, gardens and designed landscapes also requires assessment. At a radius of 5km outwards from the subject site there are 6no Scheduled Monuments identified, and 1no Grade I and 2no Grade II* listed buildings.</p> <p>The M&WDPD Heritage Impact Assessment concluded that the proposal would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The magnitude of effect upon the setting(s) of the heritage assets has been identified as either nil, or minor with the level of impact neutral. As no harm has been identified those settings would be sustained and conserved. However, should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>
Archaeology	The proposed site allocation is an operational quarry.
Hydrology and Flood Risk	The proposed site allocation lies on the Magnesian Limestone Escarpment which is a principal aquifer and within Groundwater Source Protection Zone 3. The proposed site allocation lies outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. The proposed site lies in Flood Zone 1 and therefore the proposed extension has a low probability of flooding. When planning permission was last granted at this quarry in 2012 it was reported that, “based on available information, the proposals would not have unacceptable adverse environmental effects in terms of hydrology and hydrogeology. No surface or ground water issues have arisen that cannot be controlled through mitigation measures and other pollution controls regulated by the Environment Agency”. Tarmac have advised that the base of the current sand extraction and inert landfill lies above the water table and will remain dry. It is understood that no dewatering takes place. The main environmental risk is to groundwater. Any planning application will need to demonstrate that unacceptable adverse impacts on groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented. Should the site be allocated, through the preparation of a planning application a detailed hydrological and hydrogeological investigation and risk assessment would be required.
Access and Traffic	Access to the quarry is off the A688 Wheatley Hill to Bowburn link road and along a dedicated surfaced haul road. When planning permission was last granted at this quarry in 2012 it was reported that “current vehicle

	<p>movements to the quarry were approximately 100 per day (50 in 50 out) and that there were currently no restrictions on vehicle movements. It was also estimated that average total HGV movements would be 232 (116 in/116 out) approximately split between outgoing mineral traffic and incoming vehicles bringing in inert fill”.</p> <p>The proposed waste disposal capacity which is sought would in effect provide additional capacity and the proposed mineral which would provide additional permitted reserves supplementing existing permitted reserves and would be utilised as part of existing quarry operations. It is considered that subject to the traffic and transportation impacts of the proposed development being compatible with the existing operations, traffic impacts on the local and strategic highway network should be acceptable but this would need to be confirmed through any future planning application if the site were to be allocated and at that stage a transport assessment would be required. Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions.</p> <p>National Highways have requested that the site allocations should consider the minimisation of trip generation at source. Given that minerals can only be worked where they are found it is considered that the scope for the minimisation of trip generation are limited. Subject to measures to prevent contamination, Crime Rigg Quarry does, however, provide opportunities to minimise for the transport of aggregates and inert waste through the back hauling of inert waste into the quarry using the lorries used to transport aggregates from the quarry.</p>
Amenity	<p>The closest settlements to the quarries are Old Quarrington and Quarrington Hill. The access road to the quarry passes within approximately 200 metres of properties within Old Quarrington. The closest properties to the site are Quarrington Farm approximately 100 metres to the west, properties on Church Street some 150 metres to the southwest, the Heather Lad Inn 20 metres to the east and Cassop Hill some 400 metres to the east. The amenity impacts at Old Quarrington Quarry were comprehensively considered in 2012 and again in 2020 when proposals to vary and vary planning permissions MRA/4/1/ (1), CMA/4/47 and CMA/4/4 were considered. It is considered that the proposed operations would be similar in nature to that of existing operations and given the distance from nearby settlements and receptors unacceptable adverse impacts on amenity would be unlikely to occur. Whilst it is acknowledged that the site occupies sloping elevated ground and is prominent in views from the south, south-east and south-west is nonetheless considered that the proposals would be unlikely to have significant visual effects as they would not change the outward appearance of operations to a substantial degree. If the site were to be allocated, through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not occur and that suitable mitigation measures are</p>

	in place or can be implemented. Visual, noise, dust and assessments would have to be undertaken as part of the preparation of any future planning application if the site were to be allocated.
Public Rights of Way	A Public Rights of Way (PROW) runs along the southern boundary of the operational quarry and connects with other PROW. Bridleway 42 (Cassop Cum Quarrington Parish), Bridleway 44 (Cassop Cum Quarrington Parish) and Bridleway 45 (Cassop Cum Quarrington Parish) are located to the south of the site boundary. The impact of previously permitted proposals on the amenity of the users of these rights of way have previously been considered by the Council and have been found to be acceptable in the context of the existing permitted operations. However, if the site were to be allocated, views into the site will need to be reconsidered, addressed and satisfactorily mitigated from any PROW which would be affected.
Agricultural Land	None. The proposed site lies within an operational quarry.
Cumulative Impacts	<p>There are several quarries in the wider area to the proposed site allocation. The nearest quarry is Witch Hill Quarry which lies approximately 1.9 km to the northeast and Running Waters Quarry which lies approximately 2.1 km to the north, both of these quarries have not been active for many years. A periodic review under the Environment Act 1995 was submitted for Witch Hill Quarry in December 2015 and is awaiting determination. It is noted that the project description associated with this application referred to working recommencing in 5 years i.e., in 2020 and that the quarry would be worked to 2042. To the south, the nearest quarry is Raisby Quarry which lies approximately 2.2 km to the south. Cornforth West and Cornforth East both lie approximately 3 km to the south. Both Cornforth West Quarry and Cornforth East Quarry have not been active for many years, but applications are awaiting pending consideration to allow the resumption of working and it is expected that mineral working will commence in the next few years at Cornforth West Quarry followed by working at Cornforth East in the longer term. Beyond Cornforth West Quarry and Cornforth East Quarry lies Thrislington West Quarry, Thrislington East Quarry and Bishop Middleham Quarry's. A former limestone quarry, Joint Stocks which is under restoration by waste disposal is located 1.1 km to the south.</p> <p>It is considered that all mineral sites will have cumulative environmental impacts arising from the effects of working over an extended period regardless of mitigation measures and it is considered that many of these can only be accurately determined through a planning application accompanied by an environmental statement informed by detailed site-specific assessments. The Council recognises that the proposed allocation would in effect result in continuation of mineral extraction and the sale of magnesian limestone and inert waste disposal at this quarry. Tarmac have also clarified their intention that the working of existing permitted reserves of magnesian limestone in the northern part of the quarry together with sand extraction and waste infilling (if</p>

	<p>allocated and/or permitted through a future planning application, would follow on from operations in the southern part of the quarry. Although, it must be noted that part of the southern allocation (Phase 6) will not be restored using inert waste until Quarrington North has been extracted and restored as it is intended to continue to serve as the Quarry as it is the area in which the weighbridge and other ancillary operations will continue to be located. Unacceptable adverse cumulative impacts from permitted and potential operations from the Cold Knuckle allocation are not anticipated. In relation to:</p> <ul style="list-style-type: none"> • Cumulative landscape and visual impacts: the proposed allocation lies on the southern edge of the quarry on opposite sides to both Running Waters Quarry and Witch Hill Quarry both of which lie to the north, with Raisby Quarry lying approximately 2.2 km to the south. Given the location and distance of the quarries to the north and the south and the nature of the existing permitted operations and of the proposed operations which are considered would be unlikely to result in significant landscape and visual effects, unacceptable adverse cumulative landscape and visual impacts are not anticipated. • Heritage impacts: the results of the HIA which has been undertaken do not suggest that unacceptable cumulative impacts will occur. • Ecological impacts: the impacts on designated sites in the locality have been considered through past planning permissions have been found to be acceptable in the context of the existing permitted operations and do not suggest that unacceptable cumulative impacts will occur. • Water resources, the cumulative impact of multiple quarries working above the principal and minor aquifers is also a key consideration and is carefully regulated and monitored by the Environment Agency and will need to be considered through a planning application, but unacceptable adverse or cumulative impacts are not anticipated. • Traffic is also a key consideration, however as outlined above HGVs would continue to use the existing quarry access and the HGV movements would in effect represent a continuation of current operations at the quarry, consequently unacceptable cumulative adverse impacts are not anticipated.
<p>Locational Approach to the Future Supply of Primary Aggregates</p>	<p>Locationally this proposal complies with the requirements of CDP Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). The site falls outside of and not adversely affect the North Pennines Area of Outstanding Natural Beauty (AONB), the County Durham Heritage Coast, or upon the county's Parks and Gardens of Special Historic Interest, Historic Battlefield, Conservation Areas and Scheduled Ancient Monuments. The site does not either contain or could adversely affect internationally and nationally designated sites and irreplaceable habitats. In terms of its location on the escarpment slope, the site lies within an operational quarry. The removal of limestone and its replacement with inert materials would be undertaken</p>

	broadly within the balance of cut and fill provided for in the approved scheme. There would be no material effect on the final restoration.
Need and Economic Factors	<p>Need for Magnesian Limestone: The Planning Practice Guidance advises that in considering proposals for new sites and extensions to existing sites it is important to consider the need for the mineral. It is considered that need should be considered at a County level, by resource type (i.e., magnesian limestone, carboniferous limestone or dolerite (the three types of crushed rock extracted from quarries within County Durham) or by sand and gravel) and that consideration should be given to the distribution of permitted reserves across sites within the County and the extent of permitted reserves within a particular site and the scale of sales that the site has achieved in the past or could reasonably achieve in the future.</p> <p><u>Crushed Rock</u></p> <p>At a County level the Joint Local Aggregate Assessment for County Durham, Northumberland and Tyne and Wear (April 2022) (Joint LAA) advised that in quantitative terms it is considered that County Durham does not need to seek to make any additional provision for crushed rock over the period to 2035 and 2036 as there are sufficient reserves with planning permission to deliver supply over the period to 2035 or 2036. In particular, the Joint LAA (2022) advised that permitted reserves of crushed rock in County Durham were a very healthy 97,468,070 tonnes on 31.12.20 which was equivalent to a landbank of 31.1 years. In terms of overall crushed rock supply in the period to 2035, the Joint LAA indicates a demand forecast of 46,875,000 tonnes of crushed rock over the period 2021 to 2035 and a balance between supply and demand of +59,593,070 tonnes.</p> <p><u>Magnesian Limestone</u></p> <p>At a resource level the Joint LAA advised that it is considered that a steady and adequate supply of magnesian limestone aggregate will be able to be maintained in the long term. Of the overall 97,468,070 tonnes of permitted reserves of crushed rock within the County on 31.12.20, the Joint LAA reported that 81% of the County's crushed rock permitted reserves or 78.9 million tonnes was magnesian limestone located within the County's ten magnesian limestone quarries. While it is considered that some of the permitted magnesian limestone will unlikely to be available, as the extraction of magnesian limestone is expected to cease at Thrislington East Quarry, which in addition to containing large quantities of high grade dolomite (also known as industrial dolomite) also contains a large quantity of permitted reserves suitable for aggregates use, this unavailability is not expected to adversely affect the steady and adequate supply of crushed rock aggregate or magnesian limestone. This is because the operator who would have worked permitted reserves at Thrislington East Quarry</p>

is intending to instead work other permitted reserves at Cornforth West Quarry, followed by Cornforth East Quarry over the Plan period.

At a site level the Joint LAA (2022) also reported that Old Quarrington and Cold Knuckles Quarry contained 9.757 million tonnes of magnesian limestone suitable for aggregate uses on the 31.12.20 and estimated that the quarry had a productive capacity of 300,000 tonnes per annum. The Joint LAA (2022) also anticipated that permitted reserves at this site will be sufficient to contribute to supply over the long term to at least 2042. It should be noted that the Council's assessment was based upon the entirety of the permitted reserves within the whole of Old Quarrington and Cold Knuckles quarry and the productive capacity figure is derived from Tarmac's past response to the Council's own annual survey of mineral operators which has also shown that sales in recent years have been lower than this figure since the quarry recommenced production in 2016. Tarmac's most recent production forecasts suggest magnesian limestone sales of 200,000 tonnes per annum, although Tarmac's returns to the Council's own annual survey of mineral operators identify that sales have been lower. At a site level there is no need for further magnesian limestone to be permitted. Nonetheless, despite the lack of need the Council does see merit in seeking to avoid the sterilisation of mineral resources and can see the benefits of the proposed sale of the magnesian limestone provided that the landform which it was intended to help recreate can be created using suitable alternative materials.

Waste

There is currently an acknowledged need for further waste disposal capacity in County Durham over the Plan period to 2035. However, this is a longer-term need towards the end of the Plan period. County Durham Policy 60 (Waste Management Provision) identified a capacity gap for inert Landfill and Non-Hazardous Landfill of - 3,682.8 (m³x 1,000) and this was qualified by the supporting text of the County Durham Plan to only relate to inert landfill. Paragraph 5.587 advised, 'In respect of inert wastes, County Durham has a key role in the Northeast region with approximately three quarters of the inert void space at the end of 2016 being in three landfill sites within County Durham. In this regard the forecasting has suggested that, based on current landfill capacity and the closure dates of existing sites, due to current consents expiring during the Plan period, capacity would be exhausted by 2032'. In accordance with the provisions of Policy 60 the waste management capacity gap identified within the County Durham Plan will be calculated periodically. However, this recalculation has not yet been undertaken.

While the capacity gap has not yet been recalculated the Council monitors on an annual basis the quantity of waste that is deposited and remaining landfill capacity across all of County Durham's landfill sites and has sought to prepare updated forecasts taking into account Environment Agency and waste operator information. The latest position on remaining inert landfill void space (L05 - Inert Landfill) was published by the Environment Agency in December 2021. This information identifies that remaining inert landfill void space in County Durham at the end of 2020 was a very healthy 7,261,368 cubic metres in total This is marginally below the 7,340,326 cubic metres of remaining voids space that remained available at the end of 2016, and which was used to calculate the scale of future provision of the County Durham Plan period. At the end of 2020 58.6% of all inert landfill void space was within Bishop Middleham Quarry (4,259,37 cu m), 21.6% within Crime Rigg Quarry Landfill (1,569,850 cu m) and 19.7% within Old Quarrington Landfill (1,431,881 cu m). It should be noted that the Information provided by the Environment Agency does not include void space which will be created through additional permitted mineral extraction including an additional 4 million cubic metres of void space once mineral extraction has ceased at Bishop Middleham Quarry 2029 in accordance with the existing planning permission at that site. Similarly, Tarmac have now advised the Council that further void space (approximately 1.4 million cubic metres) will be eventually become available at Old Quarrington Quarry within the existing permission area (CMA/4/48) but that had not been reported to the EA due to reporting procedures. Nonetheless, Tarmac's updated information does, however, show the longer-term potential for the existing permitted site to accommodate inert waste, although given the intended phasing for phase 6 of the approved scheme, it is not expected that additional void space that Tarmac have identified within phase 6 will be available during the plan period. The Council will need to monitor the availability of this potential void space but other than being mindful of its long-term availability until the Council reviews its waste capacity gap calculations there is still an acknowledged need for further disposal.

Given the identified need for further void space in the County Durham Plan, the Council recognises that there is a need to either allocate and grant planning permission or grant planning permission subject to suitable schemes coming forward to ensure that the longer-term need for waste disposal can be met. However, it is considered essential that sites are carefully considered to ensure that the most appropriate site or sites can be found and that whilst adequate disposal capacity is provided, that wherever possible that an over provision of capacity which would lead to excessive importation of inert waste from outside County Durham is avoided.

Inert waste has been imported and landfilled at Old Quarrington Quarry for many years and over the last ten years (2012 to 2021) combined Environment Agency and Tarmac information indicates that approximately

1,186,000 tonnes was imported and deposited at Old Quarrington Quarry Landfill. The majority of which was deposited in the last five years, only 53,578 tonnes deposited between 2012 and 2016. Environment Agency information also indicates that in In 2020 approximately 220,000 tonnes of inert waste was deposited at Old Quarrington Quarry. Updated deposits information has been provided by Tarmac for 2021 who have advised that 260,299 tonnes of inert material was deposited.

Taking into account the Environment Agency reported void space information at the end of 2020 (which excludes the additional void space which is to be recreated following mineral extraction as specified above) i.e., 1,431,881 cubic metres and a conversion factor of 1.5 tonnes of inert waste to the cubic metre it is calculated that 2,147,821 tonnes of inert waste will be able to be deposited within the area within the inert landfill within the quarry. Updated forecasts prepared as part of consideration of this allocation indicate that should disposal rates continue at 2021 levels (260,299 tonnes) that capacity will be exhausted in 2029 and that a further 1,171,109 cu m will be required to maintain disposal at these levels to 2035. Similarly, on the basis of the average of the last three years published EA information (220,825 tonnes) that capacity will be exhausted by 2030 and that a further 776,369 cu m will be required to 2035 to maintain disposal at these levels to 2035. Under both forecasts the void space reported to the EA will be exhausted by 2035. However, the Council also now understands that the Environment Agency remaining void space information excludes some void space which is yet to be created at Old Quarrington Quarry landfill, 1,445,210 cubic metres (2,167,815 tonnes) in total, which could in theory provide a further eight years capacity based upon 2021 deposit levels. Consideration of Tarmac's intended phasing plan for the imminent planning application which seeks to vary planning permissions MRA4/1/1 (south) and CMA4/47 to allow restoration through the use of inert material infilling in part of this area thereby enabling limestone currently required for restoration to be sold instead, identifies that some of this void space which is yet to be created lies within phase 5 area of planning permission reference number CMA/4/48, where they have advised, "there is a large void to be infilled with inert material and this will therefore continue until the date of 2041". In addition, a further area of void space which is yet to be created lies within phase 6 which Tarmac explains is the final infill phase for the current plant site area and ancillary operational areas. Tarmac advises that phase 6 will not be restored until Quarrington North has been extracted as it will continue to serve as the area in which the weighbridge and other ancillary operations will continue. No breakdown for how much waste disposal capacity would be available within phase 5 or 6 has been provided, but is it assumed that if infilling within phase 5 would continue as stated to 2041, that any disposal operations may not commence within Quarrington North until after 2041. Taking this information into account it is considered that without the provision of additional void space at this quarry that remaining inert landfill void space will not in fact be exhausted by 2029/2030.

	<p>The proposed allocation is for 400,000 cubic metres of inert void space ((which at a conversion rate of 1.5 tonnes of inert waste to the cubic metre) should provide sufficient capacity to enable approximately) 600,000 tonnes of inert waste to be deposited. Subject to environmental acceptability it is considered that there would be merit in the provision of additional inert void space capacity. It would help conserve existing void space at Old Quarrington Quarry Landfill and help avoid the sterilisation of magnesian limestone thereby making best use of mineral resources. The Council has calculated that the additional disposal capacity afforded by the proposed allocation if permitted could provide an additional 2.3 years at 2021 disposal rates, should they continue at this level. Should disposal rates fall and/or further void space be created following mineral extraction within the southern part of the quarry the life of the remaining void space will increase.</p> <p>Should the site be allocated the proposal would provide for both direct and indirect employment associated with disposal of inert waste. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the site allocation.</p>
Conclusion	<p>The proposed site allocation should be allocated within the Minerals and Waste Policies and Allocations Document. The Council recognises the importance of seeking to avoid the sterilisation of mineral resources and can see the benefits of the proposed sale of the magnesian limestone which was intended to be used to recreate the escarpment face, provided that the landform which it was intended to help recreate can be created using suitable inert waste materials. The proposed site allocation has the potential to be suitable for further inert waste disposal and could provide further waste disposal capacity within a quarry void adjacent to an existing inert landfill which has been operational since the late 1980s. Subject to being allocated and planning permission subsequently being granted it could make a small contribution to the ongoing need for further inert landfill capacity towards the end of the Plan period and contribute to the conservation of existing void space within Old Quarrington Landfill.</p>

Map 8 - Cold Knuckle Magnesian Limestone and inert infill.

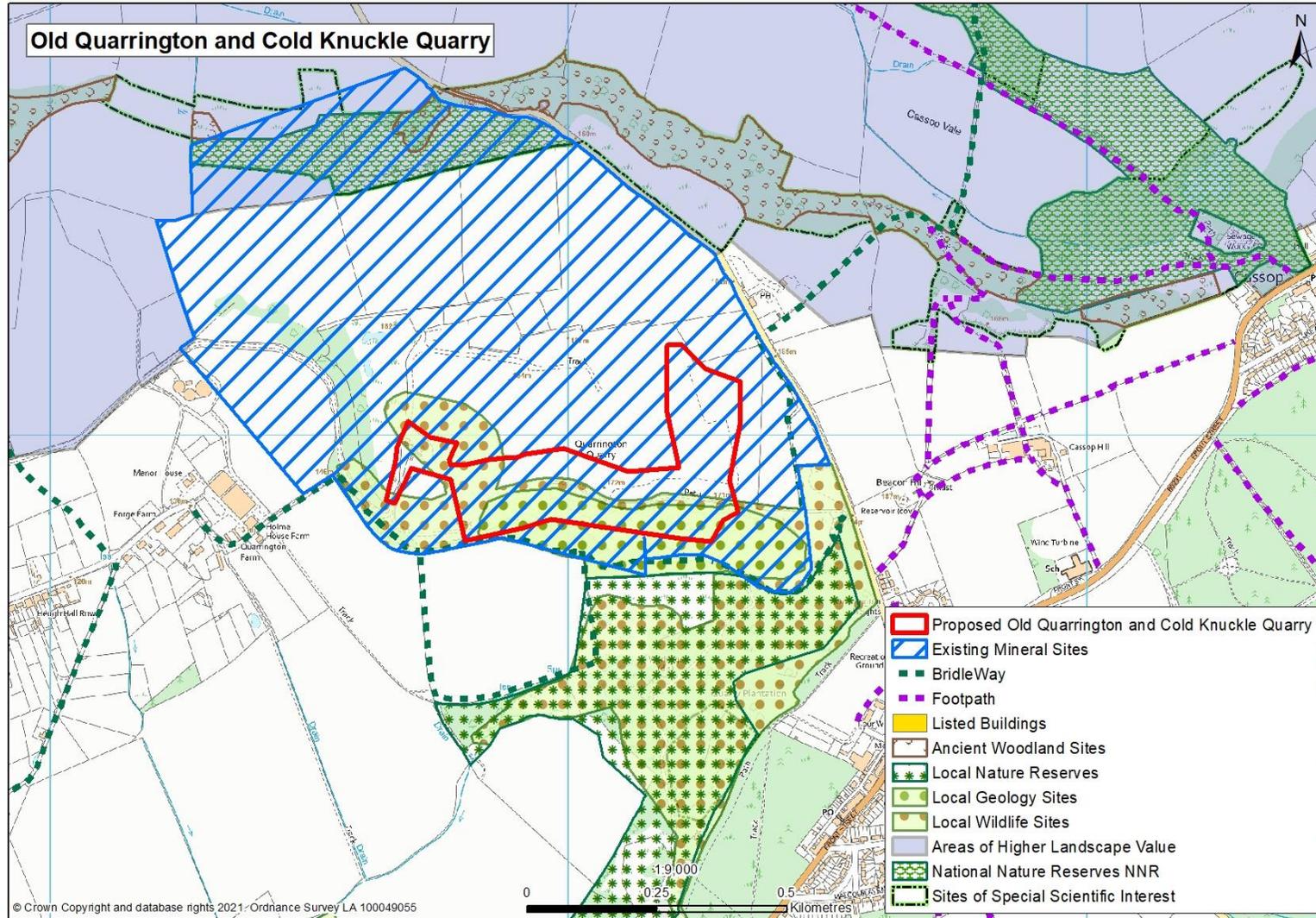


Table 11: Site M9/W3 Old Quarrington Quarry (Quarrington North).

Proposed Operator:	Tarmac
Location	Old Quarrington Quarry is located on the Magnesian Limestone Escarpment 1 km to the east of Bowburn between the hamlet of Old Quarrington and Quarrington Hill. It forms part a site known as Old Quarrington and Cold Knuckle Quarry which through a previous permission are being worked as one. Old Quarrington Quarry. Lies immediately to the north of Cold Knuckle Quarry.
Allocation area	<p>In response to the call for sites in early 2021, Tarmac proposed a site allocation which extended to 35 hectares. This site allocation was commensurate with the part of the existing planning permission at Old Quarrington Quarry which is not currently operating and needs a scheme of new modern working and restoration conditions to be agreed with the Council prior to the commencement of mineral extraction. The proposed site allocation also occupied a substantial part of the spur between Cassop Vale and Old Quarrington Vale. The northern part of the 35-hectare site is made up of the steeply sloping vale-side of ancient semi-natural woodland and magnesian limestone grassland with scattered which forms part of a wider feature forming the Cassop Vale National Nature Reserve (NNR) and Cassop Vale Site of Special Scientific Interest (SSSI). This area also contains Ancient Woodland and is also designated as part of a locally designated Area of Higher Landscape Value. The southern part of the 35-hectare site is largely made up of open and some steeper vale-side pasture with scattered scrub in the south-west. To the south of the 35-hectare site lies the operational areas of the existing Old Quarrington Quarry. The site is bounded in the east by an unclassified road and to the west by a combination of hedges and wire fences over which lies farmland of a similar character.</p> <p>Through work to consider the acceptability of the proposed allocation (as explained in the next section), the Council has sought further information from Tarmac. In response Tarmac has provided an outline of their current (illustrative) intentions for working at Quarrington North. Tarmac advised that that they do not propose to work either limestone or sand underlying the Cassop Vale National Nature Reserve (NNR) and Cassop Vale Site of Special Scientific Interest (SSSI) and have advised that they would apply stand offs from the designated sites as a responsible mineral operator, which is welcomed. As explained in the Biodiversity and Geodiversity section the Council does not consider that an allocation can be made for the land within the northern part of the proposed allocation, which underlies Cassop Vale National Nature Reserve (NNR) and Cassop Vale Site of Special Scientific Interest (SSSI) and the area of Ancient and Semi Natural Woodland. Given these circumstances the Council has considered further the scope for allocating the land which lies to the south of theses designated sites of biodiversity importance and the Area of Higher Landscape Value. This revised area extends to</p>

	<p>approximately 24 hectares. Tarmac's 35-hectare site allocation was assessed in the original version of this document which was published in September 2021. The following assessment is an updated assessment which seeks to consider both areas.</p>
<p>Mineral to be extracted/ waste to be deposited and proposed works</p>	<p>Tarmac proposes the allocation of 1.7 million tonnes of basal Permian sand which underlies a reported 9.3 million tonnes of magnesian limestone which already has planning permission for mineral working. It is understood that the 1.7 million tonnes of basal Permian Sand for which an allocation is being sought underlies the land outside of the designated biodiversity sites and Area of Higher Landscape Value. Whilst no detailed information on the depth of the basal Permian sand had been provided the Council has been advised that as dune formations the basal Permian sand is highly variable in thickness. At Quarrington, the sand is thickest to the east of the site and thinnest to the west. (For clarity, in terms of the mineral working element of the proposal it should be noted that the Council is only considering the merits of the allocation of the basal Permian sand and not the overlying permitted magnesian limestone. However, it is considered that the potential the environmental impacts of working the sand and disposal of inert waste cannot be divorced from the working of the overlying limestone). Tarmac also proposed that the void created through the extraction of both the magnesian limestone and basal Permian sand should be allocated for inert landfill and advise that the void which could accommodate 4.93 million cubic metres inert waste.</p> <p>Tarmac's submissions refer to a current forecast rate of production of magnesian limestone within the existing quarry at 200,000 tonnes per annum and a forecast rate of production of basal Permian sand within the existing quarry also at 200,000 tonnes per annum. Tarmac envisages mineral working commencing following the forecast exhaustion of remaining permitted reserves of magnesian limestone (together with the magnesian limestone sought to be sold through the Cold Knuckle allocation) and basal Permian sand within the existing working area in the southern area of the quarry, which Tarmac have forecast will now become exhausted by 2027. In terms of the rate of future sand working within the proposed allocation, Tarmac have advised that the rate that the underlying sand would be worked would be dictated by the rate of the future extraction of the permitted overlying limestone and the thickness of the beds of sand. Tarmac have advised that using the current rate for limestone this could be a relatively long period of perhaps 30 years and an indicative rate of annual sand released would be of the order 56,000 tonnes per annum. On this basis the Council assumes that an allocation for sand working is being sought for at least 30 years, from 2027 to at least 2057. This date also aligns with Tarmac's forecast for when permitted reserves of magnesian limestone and the resource of limestone identified within the Cold Knuckle proposal would be exhausted if Tarmac's production forecasts are achieved.</p>

In terms of the proposed waste disposal allocation, Tarmac has not provided information on the intended duration or timing for the proposed inert waste disposal but based on current tipping rates it is calculated that an allocation is also being sought for at least 30 years. This is based upon the capacity figure provided by Tarmac of 4.93 million cubic metres and the Council's estimate that this could accommodate approximately 7,395,000 tonnes of inert waste (minus any allowance for site engineering). In order to understand when the proposed waste disposal allocation would commence the Council has considered both Environment Agency data on remaining capacity, the most up to date deposits data and information provided by Tarmac regarding their imminent planning application which seeks to vary planning permissions MRA4/1/1 (south) and CMA4/47 to allow restoration through the use of inert material infilling in part of this area thereby enabling limestone currently required for restoration to be sold instead. This imminent planning application also seeks planning permission for the proposed Cold Knuckle site allocation (Site M8/W2 Cold Knuckle Magnesian Limestone and inert infill), which could provide a further 400,000 cubic metres if granted planning permission.

Based on Environment Agency remaining void space capacity at 2020 (1,431,881 cubic metres) and 2021 deposit data the Council assumes that the remaining void space could be exhausted in 2029. However, the Council also understands that this excludes some void space which is yet to be created, 1,445,210 cubic metres in total, which could in theory provide a further eight years capacity based upon 2021 deposits data. Consideration of Tarmac's intended phasing plan for the imminent planning application which seeks to vary planning permissions MRA4/1/1 (south) and CMA4/47 to allow restoration through the use of inert material infilling in part of this area thereby enabling limestone currently required for restoration to be sold instead, identifies that some of this void space which is yet to be created lies within phase 5 area of planning permission reference number CMA/4/48, where they have advised, "there is a large void to be infilled with inert material and this will therefore continue until the date of 2041". In addition, a further area of void space which is yet to be created lies within phase 6 which Tarmac explains is the final infill phase for the current plant site area and ancillary operational areas. Tarmac advises that phase 6 will not be restored until Quarrington North has been extracted as it will continue to serve as the area in which the weighbridge and other ancillary operations will continue. No breakdown for how much waste disposal capacity would be available within phase 5 or 6 has been provided, but it is assumed that if infilling within phase 5 would continue as stated to 2041, and that any disposal operations may not commence within Quarrington North until after 2041.

As outlined in the previous section, Tarmac has provided further information on their current intentions for the spatial extent of the proposed area of working at Quarrington North through the provision of a historic working

	<p>plan (dated 1998) entitled “Plan 1- Development and Phasing Plan”. This plan was originally submitted with the original ROMP (Review of Mineral Planning) submission made in 1998 and shows two northern working phases. They have explained that at this stage it is intended that the plan is only illustrative of their intent to the proposed allocation as the extent of the future working area could be amended later i.e., through the future planning application which Tarmac intend to submit for the entire site. Tarmac have advised the Council that they intend this further planning application (for Quarrington North) to be submitted in around 2023/2024. Subject to further consideration of the area of working which will be done through the future planning application and the EIA for the site, Tarmac have explained that they do not propose to work limestone or sand underlying the Cassop Vale National Nature Reserve (NNR) and Cassop Vale Site of Special Scientific Interest (SSSI) and have advised that they would apply stand offs from the designated sites.</p>
Current Land use:	<p>The northern third of the 35-hectare site allocation proposed by Tarmac contains areas of Ancient Woodland and grassland forming part of Cassop Vale National Nature Reserve and Site of Special Scientific Interest. The southern two thirds (24 hectares) contain agricultural land. To the south lies disturbed areas of quarry.</p>
Development Plan History:	<p>The site has not been previously nominated for an allocation.</p>
Development Management History (Summary)	<ul style="list-style-type: none"> • Quarrying operations at Old Quarrington Quarry enabling the extraction of magnesian limestone were first granted planning permission in 1952. However, unlike the southern part of the quarry where sand extraction and inert landfill is permitted, within the proposed allocation sand extraction or inert landfill is not currently permitted • Planning permission was granted in 2011 for the re-establishment of secondary aggregate recycling facility (8/CMA/4/49) in the southern part of the quarry. • In 2012 planning permission was issued which related to four applications which were approved by the County Planning Committee in 2011. These related to the initial review of old planning permissions under the requirements of the Environment Act 1995 for the working and restoration at Old Quarrington Quarry (8/MRA/4/1(1)); an extension to Cold Knuckle Quarry (8/CMA/4/47) and the variation of Condition 7 of planning permission No. 4/86/456CM to extend the period of mineral extraction until 3 July 2025 (8/CMA/4/48). • In 2019 three planning applications (DM/19/01133/VOCMW, DM/19/01134/VOCMW and DM/19/01135/VOCMW) were submitted which proposed a revised method of working the Cold Knuckle escarpment and the relocation of an area of habitat creation by varying planning permissions MRA/4/1/(1), CMA/4/47 and CMA/4/48. These applications were agreed in 2020 but are subject to a legal agreement which is currently in preparation.

Environmental Designations:	The proposed site allocation which was proposed by Tarmac is directly constrained by environmental designations.
Landscape (Summary see, Appendix 1)	<p>Approximately 11 hectares of the northern part of the 35-hectare site proposed by Tarmac lies within an area identified in the County Durham Plan as an Area of Higher Landscape Value (AHLV) which also wraps around the northern part of the quarry to both the west and east of the quarry. The northern part of the site and steeper slopes in the south-west of the site lie within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Conservation Priority Area (LCPA) with strategies of 'conserve', 'conserve & restore' and 'conserve & enhance'. The southern part of the site lies within a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'. The landscape assessment of the entire 35 hectare site which has been undertaken has advised that the working of limestone reserves in the permission area could result in significant landscape and visual effects depending on the lateral extent of extraction. It is not possible on the information provided to determine what the consequences would be of working additional sand reserves or importing waste material. As discussed above the Council has also sought to consider a smaller potential allocation area which lies to the south of the area identified in the County Durham Plan as an Area of Higher Landscape Value (AHLV). Similarly, to the original assessment the landscape assessment has focussed on the landscape effects of working of the overlying limestone, which while not subject to the proposed allocation, would be required to work to access the underlying basal Permian sand and create a void suitable for infilling via inert landfill. The overall conclusion advised that the working of limestone reserves in the permission area could be undertaken without significant landscape or visual effects if appropriately designed. Given its role as part of a sensitive landscape feature and its visibility in important views there remains potential for significant effects and this will need to be assessed in detail to inform the extent of extraction and the detailed design of site operations and restoration.</p>
Biodiversity and Geodiversity	<p>Approximately 11 hectares of the northern part of the 35-hectare site proposed by Tarmac is constrained by nationally and locally designated sites. Cassop Vale Site of Special Scientific Interest (SSSI) crosses part of the site and part of this site is also designated as Cassop National Nature Reserve (NNR). Part of the northern area, both within and outside the SSSI and NNR is also locally designated as Cassop Vale Area of Ancient and Semi Natural Woodland which is an irreplaceable habitat.</p> <p>As outlined above, Tarmac have sought to clarify the spatial extent of the proposed area of working at Quarrington North and therefore also the extent of sand extraction and inert infilling through the provision of a historic working plan. They have clarified their current intentions to not to seek to work limestone or sand underlying the Cassop Vale National Nature Reserve (NNR) and Cassop Vale Site of Special Scientific Interest</p>

(SSSI) and have advised that they would apply stand offs from the designated sites. However, they have also advised that at this stage it is intended that the plan is only illustrative of their intent to the proposed allocation as the extent of the future working area could be amended at a later date i.e., through the future planning application which Tarmac intend to submit for the entire site. Nonetheless, the extent of the proposed allocation which has been submitted for the consideration as an allocation still encapsulates the existing nationally designated sites. It is considered that without absolute certainty as to the area of proposed working and infilling that the proposal could still result in the removal of the NNR and SSSI and an area of Ancient and Semi Natural Woodland and would result in a complete loss of the designated sites and irreplaceable habitat. On the basis of what has been proposed it is considered that proposed allocation would not safeguard the nationally and locally designated sites of importance for biodiversity and could cause significant harm to biodiversity and have an adverse effect on the designated sites' interest features and ancient and semi-natural woodland which should be protected and enhanced in line with paragraphs 179 and 180 of the National Planning Policy Framework (NPPF).

In relation to the smaller potential allocation area which lies to the south of the area identified in the County Durham Plan as an Area of Higher Landscape Value (AHLV). (This area does not underly the Cassop Vale National Nature Reserve (NNR), Cassop Vale Site of Special Scientific Interest (SSSI) and Cassop Vale Area of Ancient and Semi Natural Woodland). As such it would not in lead to a direct physical loss of area to any of the designated sites. However, the Council has consulted Natural England and sought specific advice on an appropriate standoff/ buffer distance from Cassop Vale Site of Special Scientific Interest (SSSI) and National Nature Reserve (NNR). The advice which has been received is that there is currently not enough evidence available to enable Natural England to provide specific advice on an appropriate standoff/ buffer distance from Cassop Vale Site of Special Scientific Interest (SSSI) and National Nature Reserve (NNR) and that it is more important to understand the impact of the quarry extension on the interest features of the designated sites. The advice which has been received is the likely sensitive receptors within the designated sites are the magnesian limestone grassland and small calcareous flushes. Natural England raised concerns in relation to the following matters:

- Dust, nitrogen deposition and airborne pollutants - The designated sites' grassland is susceptible to nutrient enrichment from dust, nitrogen deposition and other airborne pollutants. Grassland and plants can become smothered which impacts on their photosynthetic ability. This can result in a loss of grassland to other species. There would need to be an assessment of dust levels/ air quality submitted at the planning

	<p>application stage and the applicant should produce an air quality report/ model in line with APIS to ensure the critical load/level for the SSSI does not exceed 1%. This would help protect the interest features of the designated site.</p> <ul style="list-style-type: none"> • Hydrological impacts - A hydrological and hydrogeological risk assessments will be required in support of a planning application. Such an assessment is particularly important for the proposed northern extension, as the designated sites' calcareous flushes need base rich water. The designated sites' interest features could be damaged or destroyed if the water supply is affected. • Vibrations from blasting and other quarrying activities - Blasting and ground vibrations can open fissures in the ground which poses a risk to the designated sites' interest features and people visiting the sites. An impact assessment for blasting operations on designated site interest features and people visiting the sites would be required. • Noise - People regularly visit Cassop Vale NNR and SSSI and increased noise levels could negatively impact their enjoyment of the sites. A noise impact assessment to mitigate, where necessary, noise exceedances above the current baseline level would be required. • Access- Access to the designated sites has been an issue in the past. Access to the northern extension should be via the existing quarry. <p>Given the proximity of the nationally and locally designated sites and the potential for a range of adverse impacts it is considered that even the smaller proposed allocation could still potentially have an adverse effect on the designated sites' interest features and ancient and semi-natural woodland which should be protected and enhanced in line with paragraphs 179 and 180 of the National Planning Policy Framework (NPPF).</p> <p>Should the areas out with the designated sites be allocated the restoration of the proposed allocation should complement the existing proposals for the restoration of the existing quarry which has been designed to provide biodiversity net gains and support coherent ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The restoration strategy should also aim to support the priorities of the Local Nature Recovery Strategy, delivering geo-diversity benefits where possible. A full ecological assessment will be required at the planning application stage, together with the assessments identified by Natural England.</p>
<p>Cultural Heritage (conclusion) (See MWDPD)</p>	<p>Following consultation on the Draft Plan and comments received from Historic England a desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The standard process is to identify</p>

<p>Heritage Impact Assessment for full details)</p>	<p>all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Protected Wreck Sites, Registered Historic Park and Garden or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there are 2no conservation areas. In terms of non-designated heritage assets potentially 7no fall within the immediate setting of the subject site (1-2km). At a radius of 5km outwards from the subject site there are 6no scheduled monuments, 1no Grade I and 2no Grade II listed buildings.</p> <p>The M&WDPD HIA assessment on Tarmac's proposed 35 hectare site concluded that the proposed workings would not have any direct effect on the significance (physical fabric) of any identified heritage asset identified. However, the impact upon the setting(s) of Durham World Heritage Site, Old Cassop Conservation Area and some Non-Designated Heritage Asset's close by would potentially be harmful, in relation to the other heritage assets identified the impact would be anticipated to be either nil or minor and neutral. Similarly in relation to the smaller working area, which reflects the area within which Tarmac would wish to undertake mineral extraction and disposal activities, the Design and Conservation Officer who prepared the HIA has advised that the reduced area of workings would still be potentially viewable in long distance views looking across Old Cassop Conservation Area from specific visual receptors, due to the topography, seen as part of the broad scenic landscape backdrop primarily in views from the north. The reduced area and retention of woodland (NNR) on the spur edge may decrease the overall visual effect in terms of the impact upon the wider setting of the Conservation Area. But this would be dependent on the precise nature and extent of workings, and any mitigation measures, and if it would noticeably change the landform and character of this landscape in views that draw in the Conservation Area. The same would be said for the potential visual impacts within the setting of the Non-Designated Heritage Assets in closest proximity to the site. Regarding the setting of the World Heritage Site, potential impacts would align with landscape comments insofar as the site is in the backdrop of views towards the World Heritage Site from the north-west forming part of the broad rural setting rising to the skyline. While the size of the area has been reduced and pulled back from the woodland (NNR) on the spur edge, operations would be anticipated to still be potentially viewable and discernible in the scenic rural landscape backdrop to the World Heritage Site. Workings would appear unnatural in this rural landscape and therefore likely visually harmful to the World Heritage Site setting.</p>
---	--

	However, should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.
Archaeology	The proposed site lies within the boundary of the existing planning permission.
Hydrology and Flood Risk	The proposed allocation lies on the Magnesian Limestone Escarpment which is a principal aquifer and within Groundwater Source protection zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). The proposed site allocation lies outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. The proposed site lies in Flood Zone 1 and therefore the proposed extension has a low probability of flooding. When planning permission was last granted at this quarry in 2012 it was reported that “based on available information the proposals would not have unacceptable adverse environmental effects in terms of hydrology and hydrogeology. No surface or ground water issues have arisen that cannot be controlled through mitigation measures and other pollution controls regulated by the Environment Agency”. The proposed allocation while similar to the existing the operations within the existing quarry void involve the extraction of a significant quantity of additional underlying basal Permian sand (1.7 million tonnes) and the importation of a significant volume of inert waste (4.93 million cubic metres). Tarmac have advised that the sand within proposed Quarrington North allocation area is above the water table and that the lowest point of extraction will be circa 134m AOD. This is higher than the lowest point of extraction within Old Quarrington which has remained dry. It is assumed therefore that no dewatering will take place. Similarly, it is also understood that the base of the inert fill operations will also be above the water table and are predicted to remain dry. In terms of hydrology the main environmental risks of the proposed allocation are the loss of part of the principal aquifer and the impact on features of interest within the designated sites. There is uncertainty as to what impact the extraction of the sand may have on the water table and upon groundwater quality and quantity. Should the site be allocated any planning application will need to demonstrate that unacceptable adverse impacts on groundwater quantity and quality and features of interest within the designated sites do not occur and that suitable mitigation measures are in place or can be implemented. Through the preparation of a planning application detailed hydrological and hydrogeological investigation and risk assessment would be required.
Access and Traffic	Access to the quarry is off the A688 Wheatley Hill to Bowburn link road and along a surfaced haul road. When planning permission was last granted at this quarry in 2012 it was reported that current vehicle movements to the quarry are approximately 100 per day (50 in 50 out) and that there are currently no restrictions on vehicle movements. It was also estimated that average total HGV movements would be 232 (116 in/116 out) approximately split between outgoing mineral traffic and incoming vehicles bringing in inert fill.

	<p>It is understood that through a future planning application Tarmac would be proposing a complex scheme of working for the entire quarry which involve a number of phases of mineral extraction and waste disposal in different parts of the quarry. The proposed scheme of works if allocated and permitted would extend the period duration of working and restoration for the quarry beyond the current end date of 2042 to at least 2057 (based upon the estimated potential duration of the working of the overlying limestone, underlying sand and the extent of void space which may become available and current tipping levels). While it is intended to work and restore different areas of the quarry over the life of the proposed allocation what is proposed reflects a variation on the existing scale of working and disposal operations which are currently occurring within the quarry. However, a significant increase in vehicle movements over current levels are not anticipated. Subject to the traffic and transportation impacts of the proposed development being compatible with the existing operations, traffic impacts on the local and strategic highway network should be acceptable but this would need to be confirmed through any future planning application if the site were to be allocated and at that stage a transport assessment would be required. Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions.</p>
Amenity	<p>The closest settlements to the quarries are the settlements of Old Quarrington and Quarrington Hill which lie approximately 500 metres to the southwest and 700 metres to the southeast. The access road to the quarry passes within approximately 200 metres of properties within Old Quarrington. The closest properties to the proposed site allocation are the former Heather Ladd Inn (lying along the B1278) which lies directly to the east of the existing planning permission boundary. In addition, Quarrington Farm approximately 280 metres, Forge Farm 390 metres to the southwest and Forge Farm 380 metres to the south all of which lie closer to the existing active areas of Old Quarrington and Cold Knuckle quarry than the proposed allocation.</p> <p>The amenity impacts at Old Quarrington Quarry were comprehensively considered in 2012 and again in 2020 when proposals to vary and vary planning permissions MRA/4/1/(1), CMA/4/47 and CMA/4/4 were considered and at that time it was considered that unacceptable adverse effects on amenity would be unlikely to occur.</p> <p>It is considered that the proposed operations would be similar in nature to that of existing operations. However, the proposed 35 hectare site allocation proposed by Tarmac and the smaller area 24 hectare site being considered by the Council are both at a greater distance from both Old Quarrington and Quarrington Hill than the existing working void of the quarry but are both nearer to the former Heather Lad Inn and Cassop Vale National Nature Reserve which is open access land and has views into the proposed area which Tarmac wishes to</p>

	<p>undertake extraction and disposal operations within and there would be potential for some significant effects there unless adequately mitigated. Should the site be allocated it would be essential that a sufficient separation distance between the former Heather Lad Inn and mineral working and waste disposal operations. In this regard the historic working plan (dated 1998) entitled “Plan 1- Development and Phasing Plan” does show a landscape buffer to the former Heather Lad Inn and the extraction area which was proposed at that time. The landscape assessment of the site reported that the site isn’t viewed in near views from public rights of way.</p> <p>If the site were to be allocated, through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not occur and that suitable mitigation measures are in place or can be implemented. Visual, noise, dust and assessments would have to be undertaken as part of the preparation of any future planning application if the site were to be allocated.</p>
Public Rights of Way	<p>Several Public Rights of Way (PROW) lie around the quarry. There are no recorded or alleged PROW within the Old Quarrington (north) suggested allocation, but the area of Cassop National Nature Reserve (formerly Cassop Vale) was dedicated as open access land by Natural England, so has a statutory right of access for the public on foot. The Public Rights of Way Team advise the loss of that access should be resisted, and the adverse effects of any activities close to it should be mitigated. As stated above the landscape assessment which was undertaken advised that that there would be potential for some significant effects on this open access land unless adequately mitigated.</p>
Agricultural Land	<p>A large part of the proposed allocation which lies outside of the Cassop Vale National Nature Reserve (NNR) and Cassop Vale Site of Special Scientific Interest (SSSI) is agricultural land. However, this agricultural land overlies the existing Old Quarrington planning permission. However, any soils would need to be managed in accordance with best practice and used in the restoration of the site. However, through the preparation of a planning application an agricultural land classification statement would be required to assess the quality of the agricultural land.</p>
Cumulative Impacts	<p>Within this part of County Durham there are a number of quarries in the wider area to the proposed site allocation. The nearest quarry is Witch Hill Quarry which lies approximately 1.9 km to the northeast and Running Waters Quarry which lies approximately 2.1 km to the north, both of these quarries have not been active for many years. Raisby Quarry which lies approximately 2.1 km to the south and Cornforth West Quarry and Cornforth East Quarry lie approximately 3 km to the south, similarly both of these quarries have not been active for many years, but applications are awaiting pending consideration to allow the resumption of working. Beyond Cornforth West Quarry and Cornforth East Quarry lies Thrislington West Quarry, Thrislington East Quarry and</p>

Bishop Middleham Quarry. A former limestone quarry, Joint Stocks which is under restoration by waste disposal is located 1.1 km to the south.

It is considered that all mineral sites will have cumulative environmental impacts arising from the effects of working over an extended period regardless of mitigation measures and it is considered that many of these can only be accurately determined through a planning application accompanied by an environmental statement informed by detailed site-specific assessments. Nevertheless, it is clear that the proposed allocation would in effect result in continuation of mineral extraction and inert filling at this quarry beyond the existing end date for the quarry in 2042. In relation to:

- Cumulative landscape and visual impacts: the allocation proposed by Tarmac lies on the northern edge of the quarry with both Running Waters Quarry and Witch Hill Quarry some distance to the north and Raisby Quarry to the south. Through the detailed design of the scheme there is a potential for future working to avoid the designated sites located within the northern part of the proposed allocation which would further provide visual separation from both Running Waters Quarry and Witch Hill Quarry. Given the location of the quarries to the north and the distance to the quarries lying to the south and the existing permitted operations the cumulative landscape and visual impacts of this proposal with other sites is not considered to be significant. However, as outlined by the landscape assessments which have been undertaken by the Council the proposed site allocation is of a high value and high sensitivity, it lies on elevated ground and is visible in in views from a wide range of near, middle distance and long-distance views to the north, north-east and west in which the Cassop Vale spur is a notable landmark. It sits in the backdrop to views of the Durham Castle and Cathedral World Heritage Site from the north-west, behind which it forms the southern skyline. The working of the overlying limestone reserves in the permission area could be undertaken without significant landscape or visual effects if appropriately designed. However, given its role as part of a sensitive landscape feature and its visibility in important views there remains potential for significant effects to occur.
- Biodiversity – the allocation proposed by Tarmac includes the designated sites located within the northern part of the proposed allocation, although as stated that as a responsible mineral operator has internally assessed the working limits approved by its original planning permission and likely constraints that would be applied were this to be a modern planning application, including applying stand offs from designated areas. However, the area within which Tarmac wish to undertake mineral extraction and waste disposal operations However, given the proximity of the nationally and locally designated sites and the potential for a range of adverse impacts it is considered that even the smaller proposed allocation could have an adverse effect on the designated sites' interest features and ancient and semi-natural woodland.

	<ul style="list-style-type: none"> • Heritage impacts - the assessment on Tarmac's proposed 35 hectare site concluded that the proposed workings would not have any direct effect on the significance (physical fabric) of any identified heritage asset identified. However, the impact upon the setting(s) of Durham World Heritage Site, Old Cassop Conservation Area and some Non-Designated Heritage Asset's close by would potentially be harmful. Similarly, in relation to the smaller working area, which reflects the area within which Tarmac would wish to undertake mineral extraction and disposal activities, the Council's Design and Conservation area considers that the reduced area may decrease the overall visual effect in terms of the impact upon the wider setting of the Conservation Area and the potential visual impacts within the setting of the Non-Designated Heritage Assets in closest proximity to the site but this would be dependent on the precise nature and extent of workings, and any mitigation measures, and if it would noticeably change the landform and character of this landscape in views. The impact on the setting of Durham World Heritage Site would still be likely to be harmful to the World Heritage Site setting. • Water resources, the cumulative impact of multiple quarries working above the principal and minor aquifers is also a key consideration and is carefully regulated and monitored by the Environment Agency and will need to be considered through a planning application. • Traffic is also a key consideration, however as outlined above HGVs would continue to use the existing quarry access and the HGV movements would in effect represent a continuation of current operations at the quarry which are considered to be acceptable as shown by recent permissions, consequently unacceptable cumulative adverse impacts are not anticipated. However, this would need to be determined through a transport assessment should the site be allocated. <p>Due to the sensitivity of this proposed site allocation, in relation to landscape, visual impacts, biodiversity and heritage the potential for unacceptable cumulative impacts from this site cannot be currently ruled out.</p>
Locational Approach to the Future Supply of Primary Aggregates	<p>It is considered that the allocation proposed by Tarmac does not comply with the requirements of CDP Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). This is because the proposed allocation includes within it part of Cassop Vale Site of Special Scientific Interest (SSSI), Cassop National Nature Reserve (NNR) and areas of Ancient and Semi Natural Woodland which is an irreplaceable habitat. CDP Policy 50 states that new aggregate working will be strongly resisted in locations which either contain or could adversely affect internationally and nationally designated sites and irreplaceable habitats. While some new information has been provided by Tarmac to clarify the spatial extent of the proposed area of working at Quarrington North and therefore also the extent of sand extraction and inert infilling through the provision of a historic working plan, nonetheless, the extent of the proposed allocation which has been submitted for consideration still encapsulates</p>

	<p>the existing nationally and locally designated sites. Both the 35 hectare site allocation proposed by Tarmac and the smaller 24 hectare area being considered by the Council could adversely affect nationally designated sites and irreplaceable habitats. Whether adverse impacts would occur through the working of the smaller area being considered by the Council (which is in effect the same area which Tarmac intend to work) is not known and could only be understood through the detailed assessments in line with those outlined by Natural England.</p> <p>Despite this lack of compliance, it should be noted that the sand extraction element of the proposal is consistent with the locational approach to sand and gravel working as established by Policy 50, which first seeks to prioritise proposals for basal Permian sand extraction from beneath the floor of existing magnesian limestone quarries, followed by the lateral extension of existing magnesian limestone quarries, and then followed by new sand and gravel quarries outside of environmentally important areas. As any future working of basal Permian sand would lie within a quarry void which would be created by the working of the overlying limestone the sand extraction would not be located on a prominent escarpment slope.</p>
<p>Need and Economic Factors</p>	<p><u>Minerals – Sand and Gravel:</u></p> <p>The Planning Practice Guidance advises that in considering proposals for new sites and extensions to existing sites it is important to consider the need for the mineral. It is considered that need should be considered at a County level, by resource type (i.e. magnesian limestone, carboniferous limestone or dolerite (the three types of crushed rock extracted from quarries within County Durham) or by sand and gravel) and that consideration should be given to the distribution of permitted reserves across sites within the County and the extent of permitted reserves within a particular sites and the scale of sales that the site has achieved in the past or could reasonably achieve in the future.</p> <p>At a County level the Joint Local Aggregate Assessment for County Durham, Northumberland and Tyne and Wear (April 2022) (Joint LAA) recommended that the Council seeks to make additional provision to maintain supply and also to maintain an appropriate landbank over the long-term and that this should be achieved by the Council seeking to allocate land for longer term working in the Council's forthcoming Minerals and Waste Policies and Allocations Document. In addition, it also recommended that in doing so, that any future allocations and permissions seek to ensure that productive capacity is maintained and that permitted reserves do not become concentrated within a small number of sites.</p> <p>In terms of the overall scale of additional provision that is required to be made, the Joint LAA advised that in order to maintain a seven-year landbank at 2035, it is recommended that provision is made to enable a further</p>

5.059 million tonnes of sand and gravel to be extracted over the period to 2035. These calculations were based on reported permitted reserves of 5.427 million tonnes on 31.12.20 which was equivalent to a landbank of 11.98 years. In terms of overall sand and gravel supply in the period to 2035, the Joint LAA indicated a demand forecast of 6.57 million tonnes and a balance between supply and demand of -minus 1.23 million tonnes. The Joint LAA advised that, as indicated by the balance between supply and demand the Council will not be able to maintain a minimum seven-year landbank after 2025, which is a key indicator that further provision is now necessary to be planned for.

In terms of Old Quarrington and Cold Knuckles Quarry at a site level the Joint LAA (April 2021) reported that permitted reserves were 1,645,000 tonnes on the 31.12.18 and advised that should extraction continue in accordance with this site's planning permission that this site could continue extraction until approximately 2036. Subsequently, the Joint LAA (April 2022) reported that the permitted reserves of sand at the had fallen to 1,177,000 tonnes of sand on the 31.12.20. Based on the anticipated scale of working derived from the 2012 planning permission for the quarry, both Joint LAAs reported that the quarry had a productive capacity of 140,000 per annum. The Joint LAA (April 2022) also advised should extraction continue in accordance with this site's planning permission that this site could be exhausted by 2029 but also advised that should extraction continue at existing sales levels (note this was based on pre-2019 sales levels) the Joint LAA forecast that this site could continue until the end of 2035. No comments were made by Tarmac upon either Joint LAA through the scrutiny process overseen by the Northeast Aggregates Working Party. However, during 2022 Tarmac advised the Council that permitted reserves have now fallen 0.986 million tonnes on the 31.12.21; that current sand production forecasts are for circa 200,000 tonnes/year providing a 5-year life; that the site has increased steadily since the reopening of the site from an initial forecast 100,000t/year and the site will be exhausted of permitted reserves of sand in 2027.

For many years and until Low Harperley Quarry commenced sand and gravel production in 2017, Old Quarrington and Cold Knuckle Quarry, had been together with Thrislington Quarry and Crime Rigg Quarry one of only three sand producing quarries in County Durham. Following the recommencement of sand sales in 2016 and based upon information Tarmac has provided, the Council understands that over the last three years (2019 to 2021) Old Quarrington and Cold Knuckle Quarry has made a major contribution to sand production, and this has consequently led to a significant fall in the remaining permitted reserves of sand at the quarry. It is considered that should sales continue in line with sales in 2021 and in line with Tarmac's future production forecasts (200,000 tonnes per annum), that permitted reserves of sand will be exhausted in 2027. Give this

information, the Council recognises that without further permitted reserves being made available at this quarry, it will not be able to contribute to a steady and adequate supply of sand beyond the short term. Furthermore, without further permitted reserves at this quarry permitted reserves would become concentrated within a smaller number of sites i.e., both Crime Rigg Quarry and Thrislington West Quarry (whose own future working are also dependent upon allocations being made and planning permissions been granted) and Low Harperley which has permission to 2032. Should the site be allocated, and considering Tarmac's anticipated rate of sand working, which will be dependent on the working of the overlying limestone, and in the future Old Quarrington Quarry could potentially contribute approximately 56,000 tonnes of sand per annum (subject to the thickness of the beds of Permian sand the rate that the overlying limestone is worked and sold) over a period of 30 years. While this level of sales would be lower than the sales which have been achieved at the quarry since 2018, sales at this level would be commensurate with sales prior to 2018.

Through the provisions of the draft Minerals and Waste Policies and Allocations Document the Council has already sought to make provision to meet the overall scale of identified need set out in the Joint LAA (April 2022) through two allocations identified at Thrislington West Quarry and on land to the north of Crime Rigg Quarry. In quantitative terms these two other allocations alone are sufficient to meet the forecast shortfall in supply and the scale of the plan allocations that are identified within the Joint LAA (April 2022) and maintain a seven-year landbank at 2035. However, it is now recognised that these two allocations alone would only provide sufficient productive capacity to provide sales at approximately 340,000 tonnes per annum. Subject to environmental acceptability, on this basis it is considered that there may be merit in further allocations being made to reinforce supply to ensure a steady and adequate supply of sand and gravel over the plan period. As set out above the proposed allocation at Quarrington North subject would be able to further reinforce productive capacity by approximately 56,000 tonnes per annum.

Waste – Inert Waste Disposal

There is currently an acknowledged need for further waste disposal capacity in County Durham over the Plan period to 2035. However, this is a longer-term need towards the end of the Plan period. County Durham Policy 60 (Waste Management Provision) identified a capacity gap for inert Landfill and Non-Hazardous Landfill of - 3,682.8 (m³x 1,000) and this was qualified by the supporting text of the County Durham Plan to only relate to inert landfill. Paragraph 5.587 advised, 'In respect of inert wastes, County Durham has a key role in the Northeast region with approximately three quarters of the inert void space at the end of 2016 being in three landfill sites within County Durham. In this regard the forecasting has suggested that, based on current landfill

capacity and the closure dates of existing sites, due to current consents expiring during the Plan period, capacity would be exhausted by 2032'. In accordance with the provisions of Policy 60 the waste management capacity gap identified within the County Durham Plan will be calculated periodically. However, this recalculation has not yet been undertaken.

While the capacity gap has not yet been recalculated the Council monitors on an annual basis the quantity of waste that is deposited and remaining landfill capacity across all of County Durham's landfill sites and has sought to prepare updated forecasts taking into account Environment Agency and waste operator information. The latest position on remaining inert landfill void space (L05 - Inert Landfill) was published by the Environment Agency in December 2021. This information identifies that remaining inert landfill void space in County Durham at the end of 2020 was a very healthy 7,261,368 cubic metres in total. This is marginally below the 7,340,326 cubic metres of remaining voids space that remained available at the end of 2016, and which was used to calculate the scale of future provision of the County Durham Plan period. At the end of 2020 58.6% of all inert landfill void space was within Bishop Middleham Quarry (4,259,637 cu m), 21.6% within Crime Rigg Quarry Landfill (1,569,850 cu m) and 19.7% within Old Quarrington Landfill (1,431,881 cu m). It should be noted that the information provided by the Environment Agency does not include void space which will be created through additional permitted mineral extraction. This includes an additional 4 million cubic metres of void space once mineral extraction has ceased at Bishop Middleham Quarry in 2029. However, it is recognised that this void space should not be relied upon as its availability is dependent upon the mineral extraction being completed by 2029 and because it would place undue reliance upon one site. Similarly, Tarmac have now advised the Council that further void space (approximately 1.4 million cubic metres) will be eventually become available at Old Quarrington Quarry within the existing permission area (CMA/4/48) but that had not been reported to the EA due to reporting procedures³. The availability of the additional void space at Old Quarrington will also be dependent on planning permission being granted to extend the duration of that permission.

Given the need identified for further void space in the County Durham Plan, the Council recognises that there is a need for further void space to ensure that the longer-term need for waste disposal can be met. However, it is

³ Tarmac have advised that at the start of 2022, that they now calculate that remaining permitted void space totals 2,877,091 cubic metres. They have advised that the discrepancy between Tarmac's void space figure and the figure the EA recorded for the end of 2020 is based upon reporting procedures. The EA figures relate only to currently physically available void space at the time of reporting and not to permitted maximum available void space within a specific scheme. The figure quoted above is the maximum currently permitted void- some of which is still to be created and includes void space, within phase 6 of the approve scheme, will not be restored until Quarrington North has been extracted as it will continue to serve as the area in which the weighbridge and other ancillary operations will continue to be located.

considered essential that sites are carefully considered to ensure that the most appropriate site or sites can be found and that whilst adequate disposal capacity is provided that wherever possible that an over provision of capacity is avoided.

Inert waste has been imported and landfilled at Old Quarrington Quarry for many years and over the last ten years (2012 to 2021) combined Environment Agency and Tarmac information indicates that approximately 1,186,000 tonnes was imported and deposited at Old Quarrington Quarry Landfill. The majority of which was deposited in the last five years, only 53,578 tonnes deposited between 2012 and 2016. Environment Agency information also indicates that in 2020 approximately 220,000 tonnes of inert waste was deposited at Old Quarrington Quarry. Updated deposits information has been provided by Tarmac for 2021 who have advised that 260,299 tonnes of inert material was deposited.

Taking into account the Environment Agency reported void space information at the end of 2020 (which excludes the additional void space which is to be recreated following mineral extraction as specified above) i.e., 1,431,881 cubic metres and a conversion factor of 1.5 tonnes of inert waste to the cubic metre it is calculated that 2,147,821 tonnes of inert waste will be able to be deposited within the area within the inert landfill within the quarry. Updated forecasts prepared as part of consideration of this allocation indicate that should disposal rates continue at 2021 levels (260,299 tonnes) that capacity will be exhausted in 2029 and that a further 1,171,109 cu m will be required to maintain disposal at these levels to 2035. Similarly, on the basis of the average of the last three years published EA information (220,825 tonnes) that capacity will be exhausted by 2030 and that a further 776,369 cu m will be required to 2035 to maintain disposal at these levels to 2035. Under both forecasts the void space reported to the EA will be exhausted by 2035. However, the Council also now understands that the Environment Agency remaining void space information excludes some void space which is yet to be created, 1,445,210 cubic metres (2,167,815 tonnes) in total, which could in theory provide a further eight years capacity based upon 2021 deposits data. Consideration of Tarmac's intended phasing plan for the imminent planning application which seeks to vary planning permissions MRA4/1/1 (south) and CMA4/47 to allow restoration through the use of inert material infilling in part of this area thereby enabling limestone currently required for restoration to be sold instead, identifies that some of this void space which is yet to be created lies within phase 5 area of planning permission reference number CMA/4/48, where they have advised, "there is a large void to be infilled with inert material and this will therefore continue until the date of 2041". In addition, a further area of void space which is yet to be created lies within phase 6 which Tarmac explains is the final infill phase for the current plant site area and ancillary operational areas. Tarmac advises that phase 6 will not be restored until

Quarrington North has been extracted as it will continue to serve as the area in which the weighbridge and other ancillary operations will continue. No breakdown for how much waste disposal capacity would be available within phase 5 or 6 has been provided, but it is assumed that if infilling within phase 5 would continue as stated to 2041, that any disposal operations may not commence within Quarrington North until after 2041.

The Council recognises that there is a need to ensure that the longer-term need for future disposal can be met. However, it is considered essential that sites are carefully considered to ensure that the most appropriate site or sites can be found and that whilst adequate disposal capacity is provided that wherever possible that an over provision of capacity which would lead to excessive importation of inert waste from outside County Durham is avoided.

The proposed allocation is for 4.93 million cubic metres of inert waste (which at a conversion rate of 1.5 tonnes of inert waste to the cubic metre) should provide sufficient capacity to enable approximately 7,395,000 tonnes of inert waste to be deposited. Based upon 2021 disposal rates this would provide sufficient capacity for nearly 29 years. In addition, as noted above, Tarmac have advised that further void space (1,445,210 cubic metres) will become available within phase 5 and 6 of the existing approved scheme. The Council understands that disposal operations in phase 5 are being proposed to occur until 2041 and with disposal operations in phase 6 being proposed to occur following the working of the limestone reserves in Quarrington North. Based upon 2021 disposal rates the 1,445,210 cubic metres in phase five and six this void space would provide sufficient capacity for a further 8.3 years. It is considered that the proposed allocation for 4.93 million cubic metres of inert void space would represent a significant level of overprovision in relation to the County Durham capacity gap and subject to an allocation being granted at Cold Knuckles for 400,000 cubic metres in association with disposal operation in phase 5 it is unlikely that the proposed allocation for 4.93 million cubic metres would be required until 2041.

Should the site be allocated it is considered that an allocation should be made for only inert waste disposal and that the overall scale of future disposal will need to be determined through the design of the final scheme which would need to be carefully designed as part of the preparation of a subsequent planning application to ensure that unacceptable adverse impacts do not occur and in particular that adverse effects do not occur upon the designated sites and important habitats located within the northern area of the Quarrington North proposed allocation.

	<p>Should the site be allocated the proposal would provide for both direct and indirect employment associated with disposal of inert waste. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the site allocation.</p>
<p>Conclusion</p>	<p>The proposed site allocation proposed by Tarmac and the smaller are which has also been considered by the Council should not be allocated within the Minerals and Waste Policies and Allocations Document. Whilst an allocation is sought for only basal Permian sand and inert waste disposal, the extraction of the sand and subsequent waste disposal is inextricably linked to working of the overlying permitted reserves of limestone which currently require a new scheme of working and restoration to be agreed with the Council. Any allocation for basal Permian sand and inert waste disposal would not be deliverable without the removal of the limestone and cannot therefore be reasonably made until a new scheme of conditions are agreed. The Council is also mindful that Tarmac intends to prepare and submit a planning application a planning application for the entire site including the northern area in around 2023/24 it is considered that this process which will require submission of an environmental impact assessment informed by a suite of necessary assessments could provide the most suitable mechanism for establishing the acceptability, physical extent and scale of future mineral working and inert waste disposal operations at Old Quarrington Quarry. Through considering the proposed site allocation the Council considers that an allocation cannot be made because of the following principal reasons:</p> <p><u>Biodiversity</u></p> <p>The potential for adverse impacts on both nationally and locally designated sites including Cassop Vale Site of Special Scientific Interest (SSSI), Cassop National Nature Reserve (NNR) and the area of Ancient and Semi Natural Woodland which lies in the northern third of the site allocation proposed by Tarmac. Whilst Tarmac have outlined that they do not intend to work the limestone underneath these areas as a responsible mineral operator which is welcomed, nonetheless the Council is concerned that due to the proximity, the proposed working could cause harm to biodiversity and have an adverse effect on the designated sites' interest features and ancient and semi-natural woodland which should be protected and enhanced in line with paragraphs 179 and 180 of the National Planning Policy Framework (NPPF) and for these reasons the Council cannot support the proposed allocation. The Council is mindful that Tarmac intends to prepare and submit a planning application a planning application for the entire site including the northern area in around 2023/24. It is considered that therefore that through this process the detailed ecological and other necessary assessments can be prepared to establish with certainty whether adverse impacts will occur and whether suitable mitigations can be put into place to ensure adverse impacts do not occur. Through this process the Council will be able to understand the impact of Tarmac's proposals on the interest features of the designated sites.</p>

Landscape

The landscape assessments which have been prepared have focussed on the working of the overlying limestone which is necessary given that their working/concurrent working would be necessary to extract the basal Permian sand. The assessments undertaken have identified that the site originally proposed by Tarmac could result in significant landscape and visual effects depending on the lateral extent of extraction, although it was also considered that the working of the smaller site could be undertaken without significant landscape or visual effects if appropriately designed. However, even for the smaller area, given its role as part of a sensitive landscape feature and its visibility in important views there remains potential for significant effects and this will need to be assessed in detail to inform the extent of extraction and the detailed design of site operations and restoration. It is considered that this should be undertaken through the preparation of the intended planning application. Through this process the Council will be able to understand the landscape and visual effects of Tarmac's proposals.

Cultural Heritage

The M&WDPD Heritage Impact Assessment on Tarmac's proposed 35 hectare site concluded that the proposed workings would not have any direct effect on the significance (physical fabric) of any identified heritage asset identified. However, the impact upon the setting(s) of Durham World Heritage Site, Old Cassop Conservation Area and some Non-Designated Heritage Asset's close by would potentially be harmful. Similarly, in relation to the smaller working area, which reflects the area within which Tarmac would wish to undertake mineral extraction and disposal activities, the Council's Design and Conservation area considers that the reduced area may decrease the overall visual effect in terms of the impact upon the wider setting of the Conservation Area and the potential visual impacts within the setting of the Non-Designated Heritage Assets in closest proximity to the site but this would be dependent on the precise nature and extent of workings, and any mitigation measures, and if it would noticeably change the landform and character of this landscape in views. The impact on the setting of Durham World Heritage Site would still be likely to be harmful to the World Heritage Site setting.

Need for waste disposal

The Council recognises that Old Quarrington Quarry Landfill has played an important role in inert waste disposal for many years. However, the Council is now not satisfied that there will in fact be a need for further inert waste disposal at Old Quarrington Quarry which would warrant a major allocation for further inert waste disposal during the plan period. In reaching this view the Council has considered its own forecasts for how long the existing

remaining inert void space which is reported to the Environment Agency could remain available, it has considered the contribution of the additional void space that could be provided through the Cold Knuckle allocation (which would reinforce capacity for inert disposal at the quarry's landfill (or help conserve void space)) and the further information provided by Tarmac which has advised that the that the Environment Agency remaining void space information excludes some void space which is yet to be created, 1,445,210 cubic metres (2,167,815 tonnes) in total and that disposal operations are intended to continue within phase 5 until 2041. It is considered that the proposed allocation for 4.93 million cubic metres of inert void space would represent a significant level of overprovision in relation to the County Durham capacity gap and would not constitute the adequate level of disposal that the National Planning Policy for Waste requires to be made.

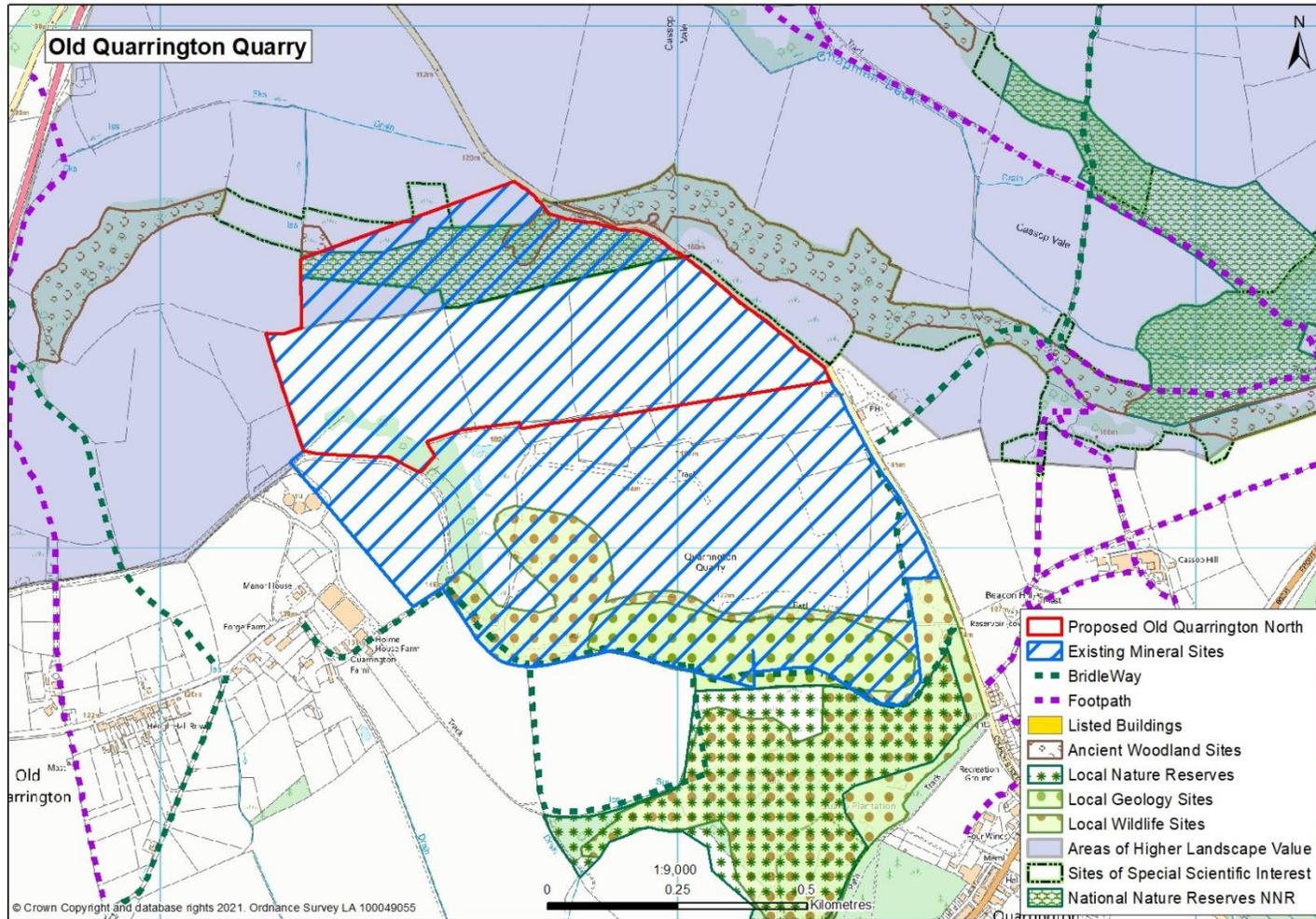
Sand

In relation to the Basal Permian Sand, despite Tarmac's production forecasts, it is the Council's view that the extent of remaining permitted reserves of sand at this quarry are still sizeable. The scale of working is determined by the company who has decided to seek to maximise sales from this quarry which has resulted in the depletion of permitted reserves at a greater rate than had been previously anticipated by the Council. Through its role as a Mineral Planning Authority the Council is required to ensure a steady and adequate provision of aggregates which it is seeking to do and not maximise opportunities for individual companies to maximise sales. Through the provisions of the draft Minerals and Waste Policies and Allocations Document the Council has already sought to make provision to meet the need set out in its latest Local Aggregate Assessment through two allocations identified at Thrislington West Quarry and on land to the north of Crime Rigg Quarry. These two other allocations alone are sufficient to meet the overall quantitative forecast shortfall in supply and the scale of the plan allocations that are identified as being needed within the Councils Local Aggregate Assessment (April 2022). It is considered that their other sites where allocations would be more beneficial to ensuring the steady and adequate supply of sand and gravel and the maintenance of productive capacity. However, it is acknowledged that there may be longer term supply benefits to the working of the sand resources underlying the limestone as part of concurrent working. It is considered that this should be explored by Tarmac through any future planning application which is made for the site.

In addition to considering the environmental topics addressed in this assessment the Council is also required to consider proposals in relation to the overall locational approach to the future supply of primary aggregates as required by County Durham Plan (CDP) Policy 50. As outlined above it is considered that the allocation proposed by Tarmac does not comply with the requirements of CDP Policy 50 (Locational Approach to the

Future Supply of Primary Aggregates). This is because the proposed allocation includes within it part of Cassop Vale Site of Special Scientific Interest (SSSI), Cassop National Nature Reserve (NNR) and areas of Ancient and Semi Natural Woodland which is an irreplaceable habitat. CDP Policy 50 states that new aggregate working will be strongly resisted in locations which either contain or could adversely affect internationally and nationally designated sites and irreplaceable habitats. While some new information has been provided by Tarmac to clarify the spatial extent of the proposed area of working at Quarrington North and therefore also the extent of sand extraction and inert infilling through the provision of a historic working plan, nonetheless, the extent of the proposed allocation which has been submitted for consideration still encapsulates the existing nationally and locally designated sites. Both the 35-hectare site allocation proposed by Tarmac and the smaller 24-hectare area being considered by the Council could adversely affect nationally designated sites and irreplaceable habitats. Whether adverse impacts would occur through the working of the smaller area being considered by the Council (which is in effect the same area which Tarmac intend to work) is not known with certainty and could only be fully understood through the detailed assessments which would be required through the submission of a planning application.

Map 9 - Old Quarrington Quarry (Northern part of Quarry – Extent of site proposed by Tarmac)
 The 35-hectare site as proposed by Tarmac



Map 10- - Old Quarrington Quarry (Northern part of Quarry) – Red line boundary shows the area which Tarmac has advised the Council it would wish to work if the site was to be allocated and which the Council has undertaken further assessment upon).

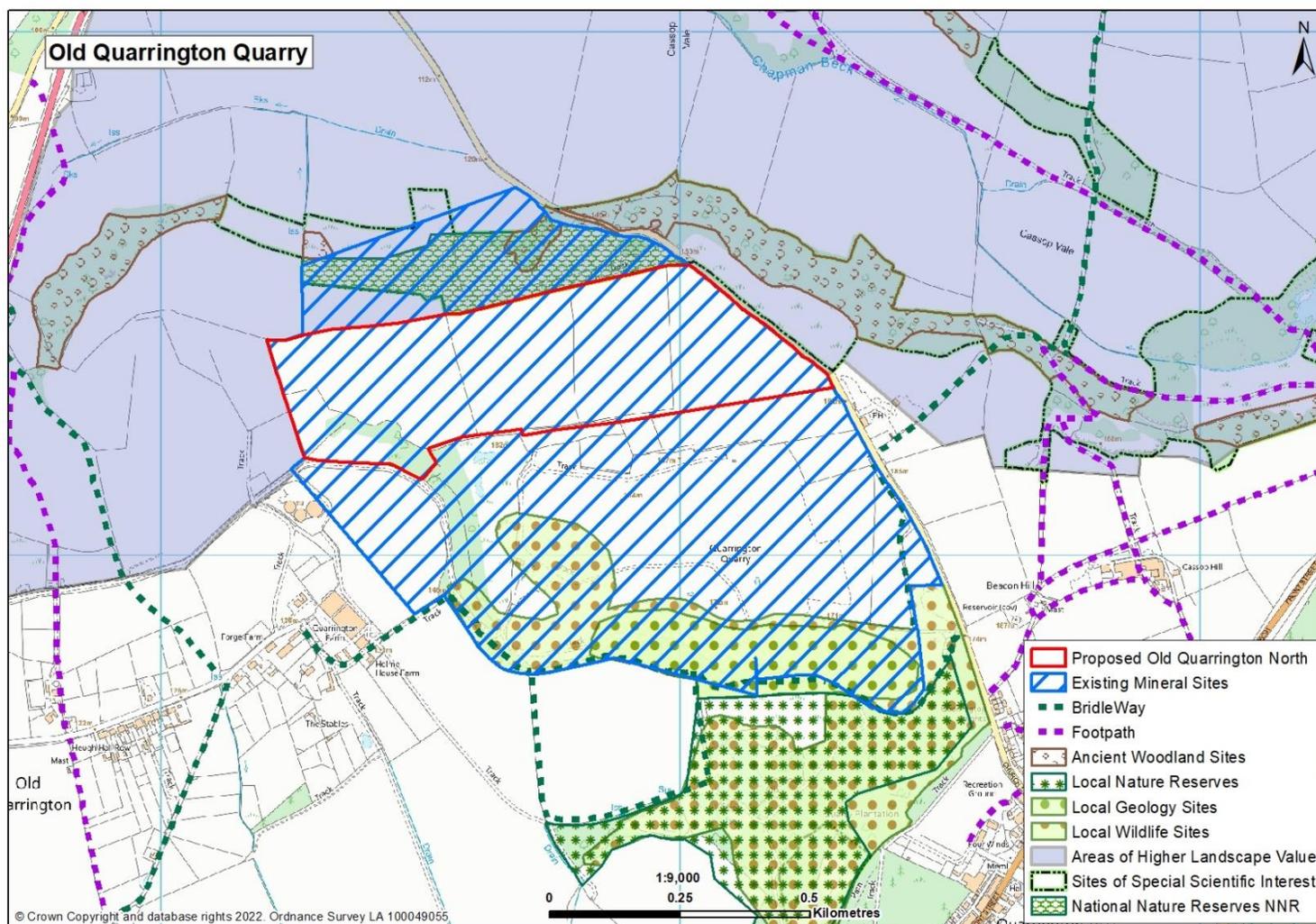


Table 12: Site M10 Hulands Quarry Eastern Extension

Proposed Operator:	Kearton Farms
Location	Hulands Quarry lies approximately 1 km to the west of Boldron, 2 km to the east of Bowes and 4 km to the southwest of Barnard Castle. The A67 lies to the north and the A66(T) lies to the south. The nearest other quarry is Kilmond Wood Quarry which lies directly to the south of Hulands Quarry and to the south of the A66(T). The proposed allocation lies to the east of Hulands Quarry which is an established carboniferous limestone quarry (59.2 hectares in extent) and the existing County Durham Plan Preferred Area (24.5 hectares in extent) allocated under County Durham Plan Policy 58 (Preferred Areas for Future Carboniferous Limestone Extraction).
Proposed Allocation area	<p>The proposed allocation extends to 26.5 hectares of land to the east and north of the existing County Durham Plan Preferred Area. The eastern boundary of the County Durham Plan Preferred Area lies approximately 500 metres to the west of the properties at West View along West Lane which mark the start of Boldron. Similarly, the eastern boundary of the proposed allocation would lie approximately 260 metres to the west of the properties at West View along West Lane which mark the start of Boldron.</p> <p>The proposed allocation site lies on a gently sloping plateau rising southwards from the shallow valley of the Thorsgill Beck to Kilmond Scar. The site is largely made up of farmland divided by a network of old hedgerows and dry-stone walls preserving in places the alignment of medieval strip fields and relics of medieval cultivation. Hedgerow trees are locally abundant, particularly in the south and east. There are localised areas of modified terrain previously worked for carboniferous limestone. There is an area of newly planted woodland in the south on the site of the former North Side Quarry. A belt of new woodland in the south and mature trees in the north form the western boundary. There are two farmsteads within the site (North Side and Lamb Hill) comprised of a range of traditional and modern buildings, and derelict farm buildings at Bell Roods.</p>
Mineral to be Extracted and proposed works	<p>The potential mineral reserve within the proposed site allocation is estimated as 6 million tonnes of carboniferous limestone which if allocated would be in addition to the existing 8.2 million tonnes already allocated within the existing Preferred Area in the County Durham Plan and would result in a combined County Durham Plan and Minerals and Waste Policies and Allocations document allocation of 14.2 million tonnes.</p> <p>Kearton Farms anticipate that mineral extraction would commence towards the end of 2024 in the County Durham Plan Preferred Area and assuming an annual production rate of 300,000 tonnes per annum they anticipate that the combined site allocation would be worked over 48 years, plus 18 months for restoration meaning that the resulting end date would be circa 2072.</p>

	<p>Kearton Farms anticipate that the site would be worked from the east face of the existing Hulands Quarry in an eastward's direction and in a phased manner, with each phase working from north to south. Stripped soil and overburden material would be used to progressively extend the existing Hulands Quarry raised northern landform eastwards along the north side of the site and would also be used to progressively form screening mounds along the majority of the southern and eastern sides of the site. These landforms and mounds would be progressively seeded to grass along with some tree and shrub planting using native broadleaf species. The site would be worked using conventional quarrying techniques and in line with those currently approved for Hulands Quarry.</p> <p>Kearton Farms propose that the site would be restored to complement the approved restoration scheme for Hulands Quarry, with a view to delivering biodiversity and landscape enhancements including calcareous grassland, some open water and wetland areas, along with agricultural use. Restoration blasting would be used to create some localised areas of buttresses, crags and screes. The northern raised landform would include areas for agricultural use. The long-term management of Hulands Quarry, once restored, is subject to an Agreement under Section 39 of the Wildlife and Countryside Act 1981 and Kearton's anticipate that a similar agreement would be sought.</p>
Current Land use:	The combined (County Durham Plan Preferred Area and the additional proposed allocation area) is largely made up of farmland divided by a network of old hedgerows and dry-stone walls. Hedgerow trees are locally abundant, particularly in the south and east. There are localised areas of modified terrain previously worked for limestone, newly planted woodland and a water/wetland area. There are two farmsteads within the site (North Side and Lamb Hill) comprising a range of traditional and modern buildings. Both farms would both be demolished.
Development Plan History:	None. However, 24.5 hectares of land to the south and west containing an estimated 8.2 million tonnes of carboniferous limestone is allocated under County Durham Plan Policy 58 (Preferred Areas for Future Carboniferous Limestone Extraction).
Development Management History (Summary)	<ul style="list-style-type: none"> • Carboniferous Limestone extraction at Hulands Quarry dates from the 1850's and formal planning permission was first granted in 1947. • In 1991 planning permission was granted for various alterations to the quarry's infrastructure, including provision of a coated road stone plant, concrete batching and screening and crushing plant. • In 1998 an extension to the existing quarry and infill with inert waste was granted planning. • In 2009 planning permission was granted for a 17.1-hectare eastern extension to provide an additional 4.59 million tonnes of permitted reserves, together with a consolidation of the previous planning permissions

	<p>(6/90/341CM and 6/96/199CM). Planning permission is due to cease in September 2024 with final restoration within 18 months (by 14 March 2026).</p> <ul style="list-style-type: none"> • Planning permission was granted in July 2014 (DM/14/00465/WAS) for the recycling of up to 75,000 tonnes per annum of road planings and road base material, with such activities due to end upon the cessation of quarrying. • Several non-mineral related permissions have also been previously granted at Northside Farm which lies within the existing County Durham Plan Preferred Area.
Environmental Designations:	The proposed site allocation is environmentally constrained in that it is overlain by a local landscape designation.
Landscape (Summary see Appendix 1)	<p>The North Pennines Area of Outstanding Natural Beauty (AONB) lies 1.5 km to the south. The site lies in an area identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan. The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Conservation Priority Area (LCPA) with a strategy of 'conserve and restore'.</p> <p>The landscape assessment of the site which has been undertaken has advised that working of the full extent of reserves in this area would be likely to result in some significant effects on a valued landscape and localised significant visual effects.</p>
Biodiversity and Geodiversity	<p>The proposed site allocation is not located within any nationally or locally designated sites. The North Pennines Moors Special Area of Conservation (SAC) and North Pennines Moors Special Protection Area (SPA) both lie over 3 km to the west. Kilmond Scar Site of Special Scientific Interest (SSSI) lies to the south of the A66(T) to the south of Kilmond Wood Quarry. Based on the proposal as submitted, Natural England considers that the proposed allocation will not have significant adverse impacts on the interest features of this SSSI. While it is not anticipated that the proposal would impact upon Kilmond Scar SSSI, the proposal area does lie within the functional land buffer of the North Pennines SPA, and it will not be possible to allocate this site until the likely risk of impact on the integrity of the European site has been adequately ruled out through an HRA (Habitat Regulations Assessment). This is due to potential disturbance to birds due to noise and vibration effects and the foraging habits of breeding golden plover. Should the site be allocated, a full ecological assessment of the site would also be expected at the planning application stage. The restoration of the proposed allocation should complement the existing proposals for the restoration of the existing quarry which has been designed to provide biodiversity net gains and support coherent ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The restoration strategy should also aim to support the priorities of the Local Nature Recovery Strategy, delivering geo-diversity benefits where possible.</p>

<p>Cultural Heritage (conclusion) (See MWDPD Heritage Impact Assessment for full details)</p>	<p>Following consultation on the Draft Plan and comments received from Historic England a desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Scheduled Monuments, Protected Wreck Sites, Registered Historic Park and Garden, Registered Battlefields, or Conservation Areas therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there are 10 no listed buildings all at grade II requiring detailed assessment. Within the red line boundary site there are two groups of buildings that are potentially NDHAs based upon historic map regression, North Side and Lambs Hill, and within the immediate surroundings of the subject site there are 6 no other potential NDHAs. The subject site does not contain any records held on the Historic Environment Record Durham County Councils Historic Environment Record (H.E.R). At a radius of 5km outwards from the subject site there are 17 no Scheduled Monuments identified, and 10 no Grade I and 15 no Grade II* listed buildings.</p> <p>The M&WDPD HIA concluded that the proposed quarry extension would not have any direct effect on the significance (physical fabric) of any identified designated heritage asset. The impact upon the setting(s) of the designated heritage assets identified would mainly be nil/minor and neutral but the setting of one listed heritage asset would be slight adverse. The impact on two farmstead NDHA's and historic features within the site would result in total loss of significance, equating to a moderate level of harm. In terms of the setting of other NDHAs the impact would be either neutral or minor adverse. However, Should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>
<p>Archaeology</p>	<p>The archaeological potential at the site is likely to be limited. However, through the planning application process any site more than 1 hectare in size would need evaluation with subsequent mitigation (generally excavation and recording) if anything found.</p>
<p>Hydrogeology and Flood Risk</p>	<p>The proposed site allocation lies on the Great Limestone aquifer which is classified by the Environment Agency as a secondary (minor) aquifer capable of supporting local water supplies and base flows to streams but not large-scale water supply. The proposed site allocation lies within the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England and therefore it will be necessary to demonstrate that the allocation can be delivered without causing additional nutrient enriched water to enter the designated site. The proposed site lies in Flood Zone 1 and therefore the proposed extension has a low</p>

	<p>probability of flooding. Within the existing Hulands Quarry, mineral extraction currently takes place below the water table, but the quarry does not actively dewater significant volumes of groundwater, but it does remove surface run off which is returned to Thorsgill Beck. It is anticipated that northern part of the site allocation could include mineral extraction below the water table, in a similar manner to that at Hulands Quarry. The main environmental risk is to groundwater. Should the site be allocated, a planning application will need to demonstrate that unacceptable adverse impacts on groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented and that local private water supplies not derogated in either quality or quantity. Water management on site will need to monitor and manage both surface water and groundwater. Through the preparation of a planning application detailed hydrological and hydrogeological investigation and risk assessment would be required.</p>
<p>Access and Traffic</p>	<p>Hulands Quarry is currently served by two vehicular accesses, one on the A66(T) and another on the A67 for quarry traffic travelling west towards Cumbria (which was included to eliminate the need for vehicles to cross the A66(T)). An average of 150 vehicle movements (75 in/75 out) currently occurs at the quarry per day. It is understood that the proposal would use the existing quarry accesses and the volume and routing of quarry vehicles entering and leaving the site is not expected to increase or change. Based on the proposed scale of working it is considered that the site would have a similar transport impact to the existing quarry. On this basis it is considered that the traffic generated by the proposal could be safely accommodated on the local highway network which is easily accessible from the site. It is also considered that the impact of the traffic generated would be acceptable with no adverse impacts upon local amenity. Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions. However, should the site be allocated the through the planning application process a Transport Assessment would be required.</p>
<p>Amenity</p>	<p>The proposed allocation lies in rural area but would at its eastern boundary lie approximately 260 metres to the west of the properties at West View along West Lane which mark the start of Boldron. It therefore lies closer to Boldron than both the existing quarry and the County Durham Plan Preferred Area. Taking into account the proposed use of the existing access and traffic arrangements the principal effects of working on amenity would be in respect to visual impact and impacts from noise, dust and blasting. Should the site be allocated, through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not occur and that suitable mitigation measures are in place or can be implemented. Noise, dust and blasting assessments would have to be undertaken as part of the preparation of any future planning application if the site were to be allocated.</p>

Public Rights of Way	<p>The proposed allocation (and the County Durham Plan Preferred Area) are both crossed by footpaths (Bowes FP No's 5 and 6) in the south and a bridleway (Bowes BW No 7) runs along the eastern edge of the existing mineral site/western edge of the proposed allocation. All three public rights of way will need to be satisfactorily diverted either permanently or for the duration of the working life of the site. There is currently no safe crossing of the A66 for users of any of the public rights of way in the vicinity of Hulands Quarry. As part of the A66 Trans Pennine project a new farm access bridge just west of Hulands will also incorporate a public footpath, linking FP 6 to FP 12 on the south side of the A66. Should the site be allocated it is important that any diversions for this site enable as easy access as possible for pedestrians to this crossing. A route adjacent to the A66 would assist in that regard, but there also needs to be routes around the east, north and west of the whole site to maintain and improve both east-west and north-south connections. For example, if the PROW is diverted around the east and north of the extension area links should be sought with West Lane. In addition, a recognised opportunity could be the creation of new PROW along the alignment of the old railway parallel and through to the A67. A bridleway link that makes bridleways (BW 7 Bowes and 8a Boldron) more useful, for example by connecting to West Lane, would be welcomed. At present there are no other bridleways recorded in this area, but routes north of the A67 have been applied for. Routes following close to the perimeter of the site should be avoided. Views into the proposed allocation will need to be addressed and satisfactorily mitigated from any PROW which would be affected. Through the working and restoration of the site it is recommended that wider benefits are sought to improve the wider public rights of way network and improve both north to south and west to east movement.</p>
Agricultural Land	<p>The proposed allocation (and the County Durham Plan Preferred Area) are both understood to be grade 3b agricultural land. The proposal would not therefore result in the loss good quality agricultural land (best and most versatile); however, this would need to be confirmed by any subsequent planning application. Through the preparation of a planning application an agricultural land classification statement would be required to assess the quality of the agricultural land. Should the site be allocated future planning applications would need to safeguard soil resources.</p>
Cumulative Impacts	<p>The proposed site is located within a rural landscape which accommodates two operational carboniferous limestone quarries, Kilmond Wood Quarry and Hulands Quarry and its proposed extension via the allocated County Durham Plan Preferred Area and the A66(T). The working of the proposed allocation would extend the duration and prolong the operational impacts of working of Hulands Quarry by approximately 20 years over and beyond that would result in the working of the County Durham Plan Preferred Area. Currently the cumulative effect of existing quarrying activities on the local area have been found to be environmentally acceptable through previous planning permissions and it is anticipated that subject to the consideration of a future planning</p>

	<p>application to extend Hulands Quarry into the Preferred Area that this will also be found to be environmentally acceptable.</p> <p>It is considered that all mineral sites will have cumulative environmental impacts arising from the effects of working over an extended period regardless of mitigation measures and it is considered that many of these can only be accurately determined through a planning application accompanied by an environmental statement informed by detailed site-specific assessments. Nevertheless, it is considered that:</p> <ul style="list-style-type: none"> • In visual and landscape terms there would be potentially cumulative effects as a result of this proposed allocation in combination with the existing Hulands Quarry workings, the County Durham Plan Preferred Area at Hulands Quarry and Kilmond Wood Quarry. In addition, sections of the A66(T) are also proposed to be upgraded as part of the A66(T) Trans Pennine Project including via a bypass at Bowes and at Cross Lanes to Rokeby including junction improvements at Cross Lanes. Furthermore, should the proposed site allocation at Boldron Cross Lanes be allocated additional cumulative impacts could occur. • In terms of ecology, the proposed allocation is not overlain and does not lie directly adjacent to any designated sites, however it does lie within the functional land of the North Pennine Moors SPA, this is a key consideration. • In terms of heritage assets, the proposed allocation is not overlain and is not adjacent to any heritage assets and therefore unacceptable cumulative impacts on heritage assets are not anticipated. • In terms of water resources, the impact of existing mineral working at Hulands Quarry on the water environment has in the past been found acceptable. However, the cumulative impact of the existing quarries and proposed extension to Great Limestone aquifer will need to be considered at the planning application stage. • In terms of traffic, it is considered that given the proposed allocation would be worked as a longer-term extension to Hulands Quarry that unacceptable cumulative traffic impacts should not occur.
<p>Locational Approach to the Future Supply of Primary Aggregates</p>	<p>Locationally this allocation broadly complies with the requirements of County Durham Plan Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). The site falls outside of and not adversely affect the North Pennines Area of Outstanding Natural Beauty (AONB), the County Durham Heritage Coast, or upon the County's Parks and Gardens of Special Historic Interest, Historic Battlefield, Conservation Areas and Scheduled Ancient Monuments. However, while it does not either contain internationally and nationally designated sites and irreplaceable habitats as outlined above the County Ecologist has advised it will not be possible to allocate this site until the likely risk of impact on the integrity of the European site has been adequately ruled out through an HRA (Habitat Regulations Assessment).</p>

<p>Need and Economic Factors</p>	<p>The Planning Practice Guidance advises that in considering proposals for new sites and extensions to existing sites it is important to consider the need for the mineral. It is considered that need should be considered at a County level, by resource type (i.e. magnesian limestone, carboniferous limestone or dolerite (the three types of crushed rock extracted from quarries within County Durham or by sand and gravel)) and that consideration should be given to the distribution of permitted reserves across sites within the County and the extent of permitted reserves within a particular sites and the scale of sales that the site has achieved in the past or could reasonably achieve in the future.</p> <p><u>Carboniferous Limestone</u></p> <p>Through the provisions of the County Durham Plan a need for additional carboniferous limestone was identified to ensure a steady and adequate supply over the period to 2035. The County Durham Plan identified an additional requirement for 14.3 million tonnes of carboniferous limestone and 11.9 million tonnes was allocated to contribute to meeting the identified need under Policy 58 (Preferred Areas for Future Carboniferous Limestone Extraction) on land east of Hulands Quarry near Bowes and on land west of Heights Quarry near Eastgate. The Preferred Area to the east of Hulands Quarry contains 8.2 million tonnes of limestone and should planning permission be granted this site will enable the site to produce up to 300,000 tonnes of carboniferous limestone per annum. The Preferred Area to the west of Heights Quarry contains 3.7 million tonnes of limestone and will enable this quarry to also produce up 300,000 tonnes of carboniferous limestone per annum.</p> <p>The Council acknowledges that its Local Aggregate Assessment (April 2021) advised that “provision remains for a further 2.93 million tonnes of carboniferous limestone to be made to meet the County Durham Plan target of 14.3 million tonnes and it recommended that scope for additional provision is considered through work to prepare the Minerals & Waste Policies and Allocations document thereby helping to reinforce long term supply and productive capacity”. However, through work to prepare the latest Local Aggregate Assessment (April 2022) and consider this proposed site allocation, this matter has now been considered. Para 6.7 of the Local Aggregate Assessment (2022) advises, “However, given that the need identified in the County Durham Plan was sufficient to meet needs to 2035 plus ten years supply of carboniferous limestone, and this forecast was calculated on this basis of 900,000 tonnes per annum, this shortfall in supply is only equivalent to just over 3 years supply post 2042 and it is now considered to be not actually needed to maintain a steady and adequate supply of carboniferous limestone over the period to 2035. It is considered that Hulands Quarry in combination with the County Durham Plan Preferred Area which lies to the east of Hulands Quarry, in combination with existing permissions at Heights Quarry (which now has planning permission to 31st September 2046) and</p>
----------------------------------	--

	<p>Kilmond Wood Quarry (which has planning permission to 21 February 2042) should provide for a sufficient supply of carboniferous limestone.” Furthermore, the proposed allocation would provide an additional 6 million tonnes of carboniferous limestone which would be worked over twenty years. However, it is proposed that this mineral would be worked as part of and following, the County Durham Plan Preferred Area, on land to the east of Hulands Quarry which assuming a start date of 2024 would be worked over approximately 27 years at a rate of 300,000 tonnes per annum. On this basis the proposed allocation would contribute to sales post 2051 and is seeking to meet a need which falls well beyond the County Durham Plan period and would not in fact contribute to meeting the need identified in the County Durham Plan. It is considered that such an allocation would not be consistent with steady and adequate supply of crushed rock aggregate.</p> <p>The site allocation proposal which was submitted referred to the A66(T) Trans Pennine Project and the role the allocation could play in contributing mineral resources to deliver the project. The Council does recognise that Hulands Quarry may potentially be one of the suppliers for materials for this project. On 14 June 2021 Highways England asked the Planning Inspectorate on behalf of the Secretary of State for its opinion (a Scoping Opinion) as to the information to be provided in an Environmental Statement (ES) relating to the proposed development. The Scoping Opinion explained that subject to approval being put in place the A66(T) Northern Trans-Pennine project is due to start construction in 2024 with the intention of the route being fully open in 2031, (although it is currently anticipated that the construction activities would commence in 2024 and the scheme open to traffic in 2029 (following a 5-year accelerated construction programme)). Accordingly, it is considered that the A66(T) Trans Pennine Project will be completed within the time period within which the County Durham Plan Preferred Area would be worked, and not the time period within which the additional land which is now proposed to supplement the County Durham Plan allocation would be worked.</p> <p>The proposal would provide for both direct and indirect employment associated with the winning and working of minerals throughout the life of the scheme. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the extension scheme. However, these direct and indirect employment benefits would not be achieved during the Plan period.</p>
Conclusion	<p>Hulands Quarry is recognised by the Council to be one of three key carboniferous limestone quarries in County Durham of importance to the steady and adequate supply of crushed rock aggregate. Through work to prepare the County Durham Plan the Council has already sought to make provision for future supply at this quarry through the allocation of a Preferred Area which lies to the east of Hulands Quarry to enable crushed rock aggregate working to continue over the Plan period to 2035 and a number of years thereafter. The allocated</p>

County Durham Preferred Area should enable the winning and working of 8.2 million tonnes of carboniferous limestone. Subject to planning permission being granted and if worked at the anticipated rate of 300,000 tonnes per annum the existing County Durham Plan allocation should enable the quarry to continue to contribute to the steady and adequate supply of crushed rock until 2051.

The Council acknowledges that its Local Aggregate Assessment (April 2021) advised that “provision remains for a further 2.93 million tonnes of carboniferous limestone to be made to meet the County Durham Plan target of 14.3 million tonnes and it recommended that scope for additional provision is considered through work to prepare the Minerals & Waste Policies and Allocations document thereby helping to reinforce long term supply and productive capacity”. However, through work to prepare the latest Local Aggregate Assessment (April 2022) and consider this proposed site allocation, this matter has now been considered. Para 6.7 of the Local Aggregate Assessment (2022) advises, “However, given that the need identified in the County Durham Plan was sufficient to meet needs to 2035 plus ten years supply of carboniferous limestone, and this forecast was calculated on this basis of 900,000 tonnes per annum, this shortfall in supply is only equivalent to just over 3 years supply post 2042 and it is now considered to be not actually needed to maintain a steady and adequate supply of carboniferous limestone over the period to 2035. It is considered that Hulands Quarry in combination with the County Durham Plan Preferred Area which lies to the east of Hulands Quarry, in combination with existing permissions at Heights Quarry (which now has planning permission to 31st September 2046) and Kilmond Wood Quarry (which has planning permission to 21 February 2042) should provide for a sufficient supply of carboniferous limestone.”

Furthermore, the proposed allocation would provide an additional 6 million tonnes of carboniferous limestone which would be worked over twenty years. However, it is proposed that this mineral would be worked as part of and following the County Durham Plan Preferred Area, on land to the east of Hulands Quarry, which assuming a start date of 2024 would be worked over approximately 27 years at a rate of 300,000 tonnes per annum. On this basis the proposed allocation would contribute to sales post 2051 and is seeking to meet a need which falls well beyond the end date of the County Durham Plan and would not in fact contribute to meeting the need identified in the County Durham Plan. On this basis, it is considered the proposed site allocation, which lies both to the north and east of the County Durham Plan Preferred Area, is not required and would not be consistent with the NPPF requirements for a steady and adequate supply of crushed rock aggregate.

Reference has been made to the A66(T) Trans Pennine Project, given the timescale that the additional area of lands would be working i.e. post 2051, it is understood that the A66(T) Trans Pennine Project will be completed within the time period within which the County Durham Plan Preferred Area would be worked, and not the time period within which the additional land which is now proposed to supplement the County Durham Plan allocation would be worked.

Locationally this allocation broadly complies with the requirements of County Durham Plan Policy 50 (Locational Approach to the Future Supply of Primary Aggregates). However, while it does not either contain internationally and nationally designated sites and irreplaceable habitats, as outlined above the proposed site allocation also lies within the functional land buffer of the North Pennines SPA and the County Ecologist has advised it will not be possible to allocate this site until the likely risk of impact on the integrity of the European site has been adequately ruled out through an HRA (Habitat Regulations Assessment). This is due to potential disturbance to birds due to noise and vibration effects and the foraging habits of breeding golden plover. In terms of landscape and visual impacts it is considered that the working of the full extent of reserves in this area would be likely to result in some significant effects on a valued landscape and some localised significant visual effects. In addition, it is considered that there would be potentially cumulative effects as a result of this proposed allocation in combination with the existing Hulands Quarry workings, the County Durham Plan Preferred Area at Hulands Quarry and Kilmond Wood Quarry. In addition, sections of the A66(T) are also proposed to be upgraded as part of the A66(T) Trans Pennine Project including via a bypass at Bowes and at Cross Lanes to Rokeby including junction improvements at Cross Lanes. Furthermore, should the proposed site allocation at Boldron Cross Lanes be allocated additional cumulative impacts could occur.

In conclusion, the Council does not consider that there is a need to allocate this land which lies to the north and east of the County Durham Plan Preferred Area within the Minerals and Waste Policies and Allocations document.

Map 11 - Hulands Quarry Eastern Extension

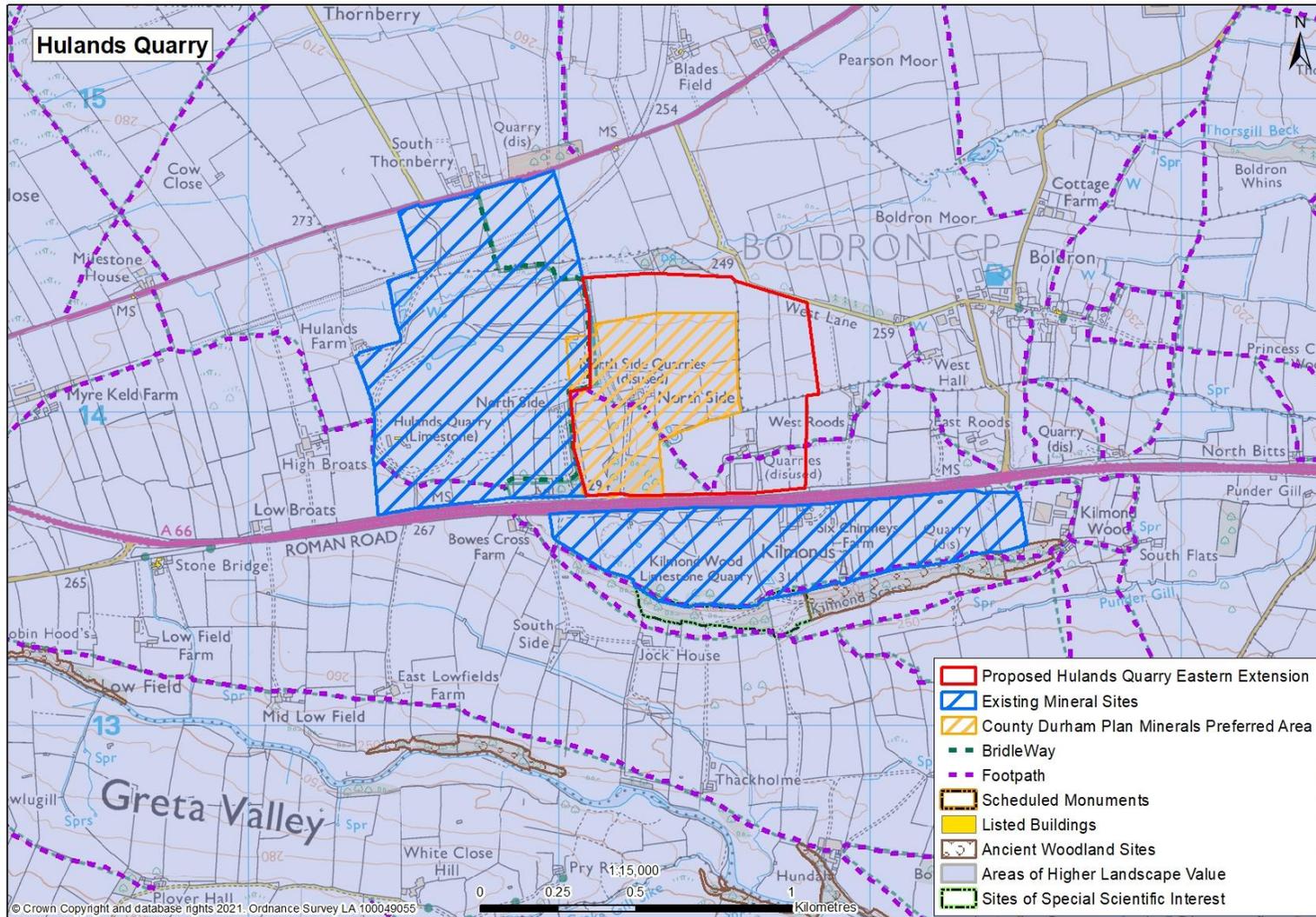


Table 13: Site M11/W4 Eldon Quarry Minerals / Waste

Site	Eldon Quarry – Minerals and Waste
Proposed Operator:	This proposed site allocation was submitted by planning consultants (the Mineral Planning Group) and no operator has been specified. It is assumed that the operator of the site was intended to be Falcons One who took partial ownership of the site in November 2021 and who then took full ownership of the site in January 2021 when the former operator of the quarry Wienerberger sold its interest in the site to Falcons One Ltd. Following the submission of the site following the call for sites in 2021, no further representations have made by the Mineral Planning Group to the Council to the emerging Minerals and Waste Policies and Allocations document including none in relation to the non-allocation of this site.
Location:	Eldon Quarry is located between the villages of Eldon and Old Eldon, some 4 km to the east of Bishop Auckland. The settlements of Close House and Coundon Grange are also located to the west of the site. It is bordered to the west by Eldon Brickworks (which Eldon Brickworks supplied until the brickworks was mothballed in 2008 before its final closure in 2012), to the south by Road C34, to the east by an access track to Eldon Blue House Farm and to the north by open farmland.
Site area:	The proposed site allocation extends to 22.76 hectares. It lies on the edge of a low plateau made up of gently rolling land in the east and steeply sloping land in the west, modified in the south by the void of the existing Eldon Quarry clay pit. It is made up of the existing quarry void, areas used for soils, overburden and brick-shale storage, including screening landforms planted with trees, and agricultural land bounded by hedges and fences. The surrounding land is in agricultural use, mostly arable with some grazing. To the north and east is the restored land of the former Blackie Boy Colliery with extensive areas of coniferous woodland and reclaimed pasture. South of Road C34 is the 18 restored Eldon Deep opencast coal site, a mixture of farmland and broadleaved woodland.
Minerals to be extracted / waste development and proposed works:	<p>Minerals: The Minerals Planning Group advised that the minerals to be exported are clays / shale with incidental coal. They advised that the total resource to be worked is approximately 2,000,000 tonnes in total. The anticipated rate of extraction is approximately 130,000 to 150,000 tonnes per annum with extraction anticipated to end on the 8th of December 2039. It is understood that this mineral is the remainder of the mineral which was granted planning permission in December 2008.</p> <p>Waste: The Minerals Planning Group advised that the waste stream which would be managed at the site would be predominantly construction, demolition and excavation wastes, the proposed waste operation is either deposit for a recovery operation or inert landfill. No information has been provided upon the overall tonnage of waste to be imported over the life of the proposed allocation or the annual volume of waste to be imported. Similarly, no</p>

	<p>information has been provided on the likely source of waste. The Minerals Planning Group advised that their proposals are subject to a proposed quarry restoration scheme and health and safety requirements, and the timescale is currently unknown.</p> <p>The submission referred to a detailed restoration scheme, which was granted planning permission in 2017 which did not include the use of imported waste to restore, but state that the use of waste or engineered fill to raise the levels from those currently approved would have a number of benefits: providing capacity for waste produced in the county that cannot be further recycled and is suitable only for disposal; stabilising any remaining faces that may otherwise be a health and safety risk in terms of land stability; the prevention of waterlogging of the excavated landform which could be possible under the current restoration scheme which features a 'bowl' landform; making the land more suitable for agricultural uses and more manageable following restoration and aftercare (for example, better allowing for grazing by removing the steep sided landform; and prevention of the currently approved landform creating a frost hollow which could be precluded using waste to raise the levels to pre-existing elevations. The submission also advised that the restoration of the site would also likely incorporate associated aggregate recycling operations.</p> <p>The submission also referred to the current capacity gap for inert landfill within the County. The submission also referred to reliance being placed solely on the potential that a single identified mineral extraction site will create capacity from 2029 onwards. The submission advised that this approach is not sustainable and there may, therefore, be significant quantities of waste that cannot be further recycled / re-used and is suitable only for disposal that would require additional landfill capacity during the Plan period.</p>
Current Land use:	<p>Quarry void. Until March 2020 when some extraction recommenced, albeit on a sporadic nature, the quarry has not operated for several years with the quarry awaiting restoration. Eldon Quarry previously served Eldon Brickworks which was formally closed in 2012 and the brick manufacturing plant was removed in 2016 and is no longer capable of making bricks with material from Eldon Quarry. More recently a significant fire occurred at the former brickwork's building in 2020.</p>
Development Plan History:	<p>Part of the proposed site was previously allocated as a Preferred Area for Brick Clay under Policy M10 (Preferred Areas) of the County Durham Minerals Local Plan (December 2000) to meet the future needs of Eldon Brickworks and to provide a 15-year landbank in 2006.</p>
Development Management	<ul style="list-style-type: none"> Minerals: Brick making at Eldon commenced in 1877. However, the quarrying of brick shale was first granted planning permission at Eldon Quarry under Interim Development Order (IDO) in February 1948. The IDO permission area covered two areas to the north and south of Road C34. A new schedule of planning

<p>History (Summary)</p>	<p>conditions for the working and restoration of the IDO permission were also approved by the Development Control Sub Committee in 1994 under the requirements of the Planning and Compensation Act 1991. The right to work the southern IDO area was removed by legal agreement in 1998 in association with Eldon Deep opencast coal scheme. In 2000 planning permission was granted for the extraction of this ancillary coal which had previously been extracted and transported off site without the necessary planning permission.</p> <ul style="list-style-type: none"> • The extant mineral planning permission (8/CMA/7/63) (alternative reference 7/2007/0524/CM)) was issued in December 2008 and permitted an extension to the existing quarry to the north and the east and sought to provide sufficient permitted reserves to provide long term security of supply to Eldon brickworks. In total the planning permission permitted the extraction of approximately 2,330,000 tonnes of brickmaking materials (mainly shale) at an annual output of 75,000 tonnes over 31 years (plus 1-year final restoration and planting and 5 years aftercare). In addition, some 55,000 tonnes of in situ coal was also to be extracted during the life of the site. Extraction was to occur on a campaign basis over a period of 4 to 8 weeks, 2 to 3 times per year. While development commenced, mineral extraction ceased due to the mothballing of the brickworks in 2008 and its final closure in 2012 and only limited extraction occurred. Condition 6 required that the winning and working of brick shale and coal should cease by no later than 31 years from the date of commencement of the development, as notified to the MPA under Condition 6 i.e., June 2042. Through its restoration, it was originally proposed that the site would be restored to provide 8 hectares of agricultural land, 10.3 hectares of woodland and 2 hectares of species rich grassland. • In May 2017 a detailed restoration scheme was approved (DRC/17/00039) featuring a ‘bowl’ feature, with areas of retained woodland and scrub (that have already naturally regenerated), agricultural pasture, grassland areas and small water bodies / ephemeral damp areas. To date no site restoration works have taken place. • In March 2020 a planning application was submitted to vary conditions 10, 13 & 24 of Planning Permission 7/2007/0524CM in respect of export of brick making materials (DM/20/00604/VOCMW) Conditions 10 and 13 referred to the export of coal only and, as currently worded, condition 24 allows solely for brick making materials to be exported to the adjacent Eldon Brickworks. The proposal to vary conditions 10, 13 and 24 would collectively have allowed for brick making materials to be exported from the appeal site to any location. This planning application was refused by the Council on the 8 October 2021 and subsequently an appeal was dismissed on the 23 March 2022. <p>Waste:</p>
------------------------------	--

	<ul style="list-style-type: none"> • There is an extant planning permission (DM/15/03747/WAS) for the reuse of the existing materials storage area. • Planning permission was granted for a change of use for the former brickworks to a materials recycling facility (DM/15/03748/WAS) in 2016 but the permission was not implemented. • A planning application (DM/20/00314/WAS) which proposed a change of use from a brickworks to a materials recycling facility was refused in July 2020.
Environmental Designations:	Eldon Quarry void is not overlain by any environmental designation.
Landscape (Summary see Appendix 1)	<p>The site does not lie in an area covered by any national or local landscape designations. Land to the north is identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan. The site lies largely within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.</p> <p>The landscape assessment of the site which has been undertaken has advised that the working of the reserves in this area would be likely to result in some locally significant landscape and visual effects. These could be mitigated to a degree by design as provided for in CMA/7/63. The infilling of the void space created by CMA/7/63 could potentially be undertaken without significant landscape and visual effects provided that it was suitably integrated with the extraction process. The long-term effect on the character of the landscape would be likely to be beneficial. The approved landform of CMA/7/63 as mitigated by planting was considered to be acceptable, and its infilling would not therefore be considered essential, but restoration to natural levels would have a lower impact on landscape character.</p>
Biodiversity and Geodiversity	Eldon Quarry is not overlain by any designated biodiversity or geodiversity site. The nearest designated site is Eldon Grasslands Local Wildlife Site (LWS) approximately 270 metres to the north. Should the site be allocated a full ecological assessment of the site would also be expected at the planning application stage. The restoration of the proposed allocation should complement the existing proposals for the restoration of the existing quarry which has been designed to provide biodiversity net gains and support coherent ecological networks, in line with the requirements of the NPPF and the County Durham Plan. The restoration strategy should also aim to support the priorities of the Local Nature Recovery Strategy, delivering geo-diversity benefits where possible.
Cultural Heritage (conclusion) (See MWDPD)	Following consultation on the Draft Plan and comments received from Historic England a limited desk-based Heritage Impact Assessment (HIA) was undertaken to consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The assessment standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled

Heritage Impact Assessment for full details)	<p>monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>At a radius of 2km there are no identified World Heritage Sites, Protected Wreck Sites or Registered Battlefields, therefore such designated heritage assets do not require any further consideration in this heritage impact assessment. Within the study area there are no Scheduled Monument, 9no listed buildings, and 2no Conservation Area requiring detailed assessment. Within the surroundings of the subject site there are 4 key potential non-designated heritage assets (NDHA) lying within close proximity to the site. At a radius of 5km outwards from the subject site 10no Grade I and 9 Grade II* listed buildings have been identified and 5no scheduled monuments There is one Park and Garden of Special Historic Interest, Windlestone Hall (Grade II listed).</p> <p>The M&WDPD limited HIA for this site concluded that the proposal would cause no harm to the significance (physical fabric) of any of the heritage assets identified, while the impact upon the setting of all of the heritage assets, excluding Eldon Blue House, would either be nil or minor and neutral (no harm). The impact upon the setting of Eldon Blue House would likely be moderate adverse. Should the site be allocated, through the planning application process a full appraisal of impact on cultural heritage will be required.</p>
Archaeology	<p>The site has no archaeological potential. As part of work to prepare the planning application which resulted in the extant mineral permission (8/CMA/7/63) an archaeological assessment and a field evaluation was carried out and indicated that the possible archaeological features which were previously identified in the Environmental Statement are not of significant interest.</p>
Hydrogeology and Flood Risk	<p>There are no watercourses within Eldon Quarry. Dene Beck, a tributary of the River Gaunless, lies some 300 metres to the west of the quarry. The eastern part of the proposed site allocation lies on the principal aquifer. The proposed site allocation lies outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. Eldon Quarry lies in Flood Zone 1 and therefore the quarry has a low probability of flooding. The extant mineral permission considered the impact of the proposed mineral extraction in 2008 and advised that no adverse impacts on surface or ground water have been identified which cannot be controlled through mitigation measures and conditions. However, the proposed site allocation proposes the extraction and removal of all remaining mineral and the importation of unspecified volumes of inert waste constitute a significant change and impacts on hydrogeology would need to be reassessed. Should the site be allocated any planning application will need to demonstrate that unacceptable adverse impacts on</p>

	<p>groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented. Through the preparation of a planning application detailed hydrological and hydrogeological investigation and risk assessment would be required.</p>
Access and Traffic	<p>The site is accessed from the C34 road (Eldon to Old Eldon). When previously used as a brickworks, bricks were regularly despatched from the brickworks and it is understood that during 2006 the bricks were dispatched on 250 days at an average of 13 loads per day. The permission which was granted in 2008 required that all materials (excluding coal) would be moved using internal haul roads between the quarry, stockpiling areas and brickworks. When the extant permission was considered, it was reported that coal would be taken offsite 2 or 3 times per year and would involve between 60 to 90 vehicle movements. The export of bricks was not included in the application which was permitted. Condition 13 of planning permission 7/2007/0524CM specifies that the maximum number of HGV's associated with the export of coal entering and leaving the site would be 25 on any weekday. When consulted on the proposal to vary conditions 10, 13 & 24 of Planning Permission 7/2007/0524CM in respect of export of brick making materials (DM/20/00604/VOCMW) from the site to other local brickworks, County Highways did not object to this proposal.</p> <p>The site allocation submission proposes the extraction and removal of all remaining mineral and the importation of unspecified volumes of inert waste for disposal and/or aggregate recycling. On the basis that no information has been provided upon the overall tonnage of waste to be imported over the life of the proposed allocation or the annual volume of waste to be imported the transport implications of the waste proposal are unknown. Therefore, on this basis the proposals in combination have the potential to have a discernible environmental impact on the surrounding road network and it is uncertain as to whether the traffic generated by the proposals could be safely accommodated on the local highway network. Further information is required on traffic and transport arrangements, including the number of predicted vehicle movements associated with the quantity of minerals that would be exported from the site and their likely destination and the quantity of waste which would be imported for disposal or recycling to the site.</p> <p>Highway issues relating to the sheeting of vehicles leaving the site, provision of wheel washes, maintenance of haul roads and cleanliness of the adjacent highway would need to be controlled by planning conditions. Should the site be allocated the through the planning application process a Transport Assessment would be required.</p>
Amenity	<p>The proposed allocation is located between the villages of Eldon and Old Eldon. The closest residential property, Eldon Blue House Farm, is located approximately 45 metres to the northeast of the site and Old Colliery House is approximately 80 metres to the west. The closest property in Old Eldon is some 180 metres to the east of the</p>

	<p>site. The proposals represent a departure from the approved planning permissions for the site and in combination the proposed mineral working and infilling with an unspecified quantity of inert waste to an unspecified timescale may have amenity impacts. The principal effects of working on residential amenity would be in respect to noise, dust, blasting and visual impact and that from traffic. Should the site be allocated, through the planning application process any planning application will need to demonstrate that unacceptable adverse impacts do not occur and that suitable mitigation measures are in place or can be implemented. Noise, dust and vibration (if blasting was necessary) assessments would have to be undertaken as part of the preparation of any future planning application if the site were to be allocated.</p>
Public Rights of Way	<p>An extensive Public Rights of Way (PROW) network lies in close proximity to the proposed allocation. FP 25 (Eldon Parish) lies along the southern extent of the allocation and crosses the southeast corner. FP 19 (Eldon Parish) lies to the east, FP 18 (Eldon Parish) and FP 22 (Eldon Parish) lie to the north. Any adverse impacts on public enjoyment of these paths should be addressed and mitigated. There are no alleged public rights of way affected. FP 25 would require either permanently diverting, or temporarily diverting or stopping-up for the working life of the site. For example, it may be possible to divert part of FP 25 on to the private farm track to the east to form a connection with Road C34 and the section of FP 25 lying parallel to the north of the road. It is noted that there is an Ordnance Survey concrete Triangulation pillar close to FP No. 25 and lying within the site red line. These 'Trig Points' are a common feature across the British landscape. Contact with the Ordnance Survey would determine if the pillar is in use as a Passive Station. This feature should be acknowledged and protected. Should the site be allocated, through the preparation of any planning application views into the proposed allocation will need to be addressed and satisfactorily mitigated from any PROW which would be affected. Through the working and restoration of the allocation potentially wider benefits should be sought to improve the wider public rights of way network.</p>
Agricultural Land	<p>The proposed site has previously had permission for mineral working and therefore the impact on agricultural land has already been considered through the consideration of the previous planning permission. However, the proposals could have an impact on the delivery of the approved restoration strategy for the quarry which proposed to return part of the site to agricultural pasture.</p>
Cumulative Effects	<p>There are no active mineral sites within 5 km of the application site. The former Eldon Deep opencast coal site commenced in 1998 and entered aftercare in 2003 for a period of 5 years. The existing quarry has been operational since the late 1940's. Planning permission exists for the sand and gravel extraction at Hummerbeck some 5 km from the site but a new scheme of working and restoration conditions are required to be agreed prior to the recommencement of mineral extraction at the site. Disturbance caused by the former opencast coal site</p>

	<p>has now ceased and the Hummerbeck site is some distance away and has been inactive since new conditions were agreed at that site in 2011.</p> <p>It is considered that all mineral sites and waste sites will have cumulative environmental impacts arising from their effects over an extended period regardless of mitigation measures and it is considered that many of these can only be accurately determined through a planning application accompanied by an environmental statement informed by detailed site-specific assessments. As outlined in this assessment further information is required. However, based upon what has been provided it is considered that the combined cumulative impact of the proposed mineral and waste disposal and recycling operations have the potential to result in adverse impacts on both amenity and upon traffic and transportation matters.</p>
<p>Need and Economic Factors</p>	<p><u>Minerals – Brickmaking Raw Materials:</u></p> <p>Through the preparation of the County Durham Plan the Council has considered and addressed the need for further brickmaking raw materials over the life of the County Durham Plan to 2035. Provision has been made to meet the future needs of Todhills Brickworks in County Durham via a strategic area of search under County Durham Plan Policy 59 (Strategic Area of Search to the South of Todhills Brickworks) and a planning application is pending determination for this site allocation in association with an extension of the time period for the working of Long Lane Quarry until 2043. Provision has also previously been made to meet the long-term needs of the Union Brickworks in Gateshead through a planning permission for the further deepening of Birtley Quarry which was issued in December 2016. This planning permission provides sufficient brick making raw material for the brickworks to 2044. In the long term and in order to maintain a 25-year stock of permitted reserves for the Union Brickworks it is recognised that potentially further provision may be needed from within County Durham or from an alternative site in Gateshead Borough. In this respect, clay of suitable quality for brick manufacture is currently safeguarded at Lamesley in the Newcastle/Gateshead One Core Strategy. Paragraph 13.16 of the Newcastle/Gateshead 'One Core Strategy - Planning for the Future Core Strategy and Urban Core Plan', which was adopted on 26 March 2015, states, 'The only potentially workable deposit of brick clay is located at Lamesley in Gateshead and is safeguarded'. In relation to other brickworks in the Northeast, it is also understood that Newcastle City Council's Development and Allocations Plan (DAP) 2015-2030 which was adopted in June 2020 makes it clear that there is a 27-year stock of permitted reserves of brick clay from Red Barns Quarry in South Tyneside for use at Throckley brickworks.</p> <p>During the preparation of the County Durham Plan, the need for further brickmaking raw materials for any other brickworks in the Northeast was not raised with the Council by any other Northeast Council or by any brick</p>

manufacturer. The Council is not aware of any unmet need for brickmaking raw materials which has not already been addressed and no case has been made through the preparation of the M&WDPD for an allocation at Eldon Quarry based on meeting the specific needs of a brickworks in either County Durham or in any other part of the Northeast. An allocation will not be considered without a clear functional need to an existing brickwork's and to do so would be inconsistent with the requirements of NPPF paragraph 214 and County Durham Plan Policy 52 (Brick Making Raw Materials). In particular, County Durham Plan Policy 52 states that proposals for new workings which are intended to serve brickworks outside of County Durham will need to demonstrate that they are required to maintain a 25 year stock of permitted reserves of appropriate properties and this need cannot be met from an existing permission or allocation related to the associated brickworks and it can be demonstrated that the raw material needs cannot be met from a site or sites closer to the brickworks.

Waste

There is an acknowledged need for further waste disposal capacity in County Durham over the Plan period to 2035. However, this is a longer-term need towards the end of the plan period. County Durham Policy 60 (Waste Management Provision) identified a capacity gap for inert Landfill and Non-Hazardous Landfill of -3,682.8 (m³x 1,000) and this qualified by the supporting text of the County Durham Plan to only relate to inert landfill. Paragraph 5.587 which advises, 'In respect of inert wastes, County Durham has a key role in the Northeast region with approximately three quarters of the inert void space at the end of 2016 being in three landfill sites within County Durham. In this regard the forecasting has suggested that, based on current landfill capacity and the closure dates of existing sites, due to current consents expiring during the Plan period, capacity would be exhausted by 2032'.

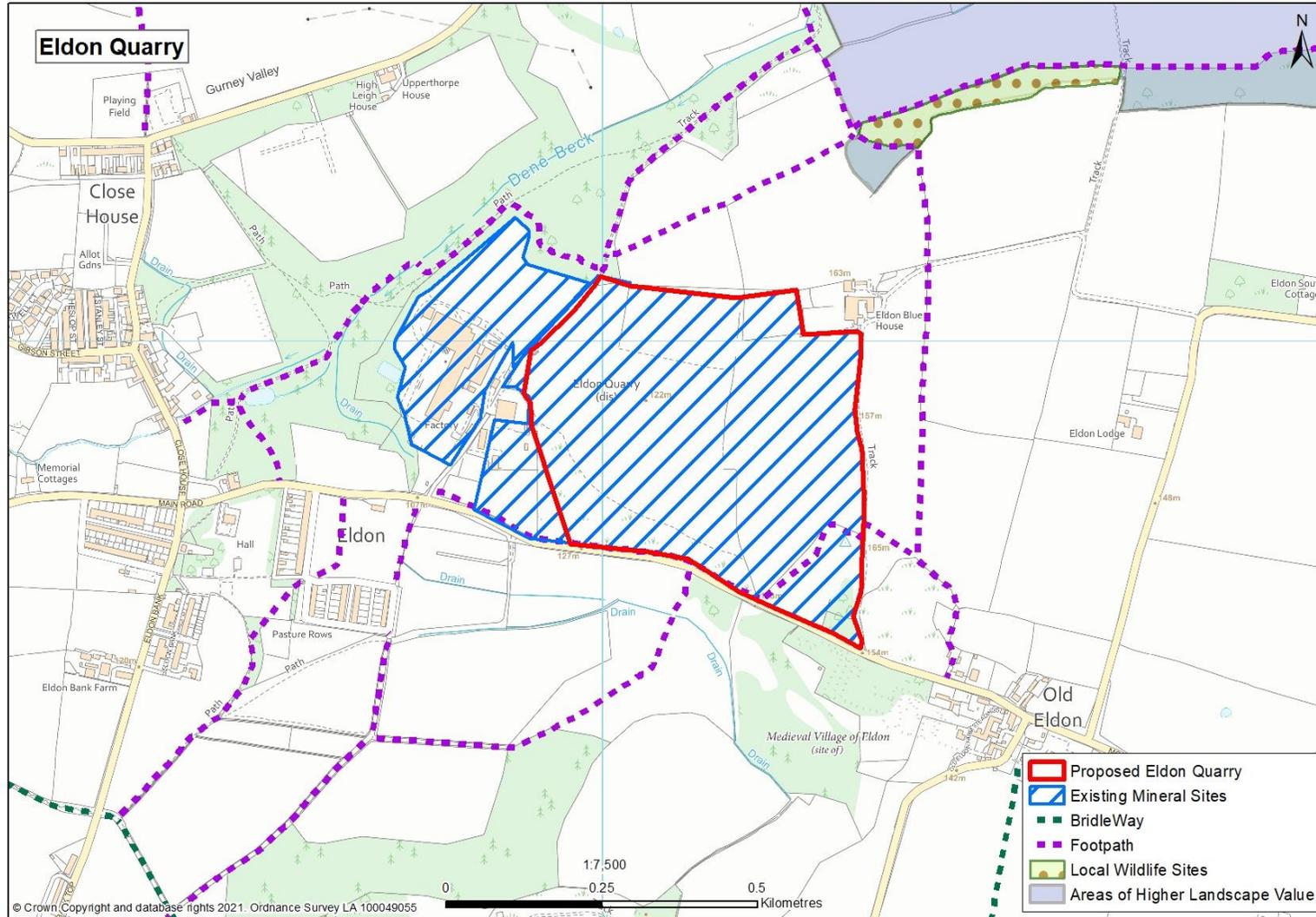
The latest position on remaining inert landfill void space (L05 - Inert Landfill) was published by the Environment Agency in December 2021. This information indicates that remaining inert landfill void space in County Durham at the end of 2020 is still very healthy and was 7,261,368 cubic metres in total. This is marginally below the 7,340,326 cubic metres of remaining voids space that remained available at the end of 2016, and which was used to calculate the scale of future provision of the County Durham Plan period. It should be noted that the Information provided by the Environment Agency at the end of 2020 does not include void space which will be created through additional permitted mineral extraction. Paragraph 5.587 of the County Durham Plan explains that it is understood that further inert void space at Bishop Middleham Quarry will become available providing an estimated 4 million cubic metres of void space once mineral extraction has ceased in 2029 in accordance with the existing planning permission at that site. Similarly, Tarmac have now advised the Council that further void

	<p>space (approximately 1.4 million cubic metres) will be eventually become available at Old Quarrington Quarry within the existing permission area (CMA/4/48) but that had not been reported to the EA due to reporting procedures. They have explained that the void figures reported to their Permitting team relate only to currently physically available void space at the time of reporting and not to permitted maximum available void space within a specific scheme. However, the additional void space at Old Quarrington will be dependent on planning permission being granted to extend the duration of this permission and is likely to be only available following the extraction of permitted limestone in the northern part of the quarry. The Council will need to monitor the availability of this potential void space but other than being mindful of its long-term availability until the Council reviews its waste capacity gap calculations there is still an acknowledged need for further disposal.</p> <p>Given the identified need for further void space in the County Durham Plan, the Council recognises that there is a need to either allocate and grant planning permission or grant planning permission subject to suitable schemes coming forward to ensure that the longer-term need for waste disposal can be met. However, it is considered essential that sites are carefully considered to ensure that the most appropriate site or sites can be found and that whilst adequate disposal capacity is provided that wherever possible that an over provision of capacity which would lead to excessive importation of inert waste from outside County Durham is avoided. The Minerals Planning Group have not provided any details of either the annual or overall volume of inert waste which would be proposed to be disposed at Eldon Quarry. No site, no timescale has been provided for commencement or completion and no information on final levels have been provided. Similarly, no information has been provided on the proposed aggregate recycling operations which are also promoted as part of the allocation. Until further information has been provided the Council cannot assess this proposal further.</p>
Conclusion	<p>The proposed allocation should not be allocated in the Minerals and Waste Policies and Allocations Document.</p> <p>Mineral proposal: Through the preparation of the County Durham Plan the Council has considered the need for future need for brickmaking raw materials and provision has been made to meet the needs of Todhills Brickworks in County Durham and permitted reserves are also available to meet the long-term needs of the Union Brickworks which is served by Birtley Quarry in County Durham. The Council is not aware of any unmet need and no case has been made for an allocation based on meeting the specific needs of a brickworks in County Durham or in any other area in the Northeast. The site is also safeguarded through the provisions of the Policy 48 (Safeguarding Minerals Sites, Minerals Related Infrastructure and Waste Management Sites). On this basis it is not considered necessary or appropriate to allocate this site. As outlined above a planning application which sought to vary conditions 10, 13 & 24 of Planning Permission 7/2007/0524CM in respect of export of brick</p>

making materials (DM/20/00604/VOCMW) was refused in October 2021 and then dismissed at appeal in March 2022.

Waste proposal: The proposals for waste infilling are dependent on the extraction of the mineral within the quarry and there is not a permission in place to allow the extraction and export of the permitted reserves. In these circumstances it would not be possible for inert waste to be imported and deposited at the quarry as this would sterilise the mineral resource which is safeguarded by the County Durham Plan. The Minerals Planning Group have not provided any details of the overall volume of waste which would be proposed to be disposed over the life of the site, no timescale has been provided for commencement or completion of disposal operations and no information on final levels have been provided. Similarly, no information has been provided on the proposed aggregate recycling operations which was also promoted as part of the allocation. Until further information has been provided the Council cannot assess this proposal further.

Map 12 - Eldon Quarry Minerals / Waste



The site and its surroundings

Landscape Character

The site lies in the *East Durham Limestone Plateau* County Character Area which forms part of the larger *East Durham Magnesian Limestone Plateau* National Character Area (NCCA15). The site lies in the *Northern Limestone Escarpment* Broad Character Area which belongs to the *Limestone Escarpment* Broad Landscape Type.

The site lies on a broadly east-west trending spur of the escarpment on the upper slopes of Witch Hill, which falls gently in the east to a shallow col between the headwaters of Shadforth dene and Cassop Vale. It is made up of open arable farmland (*Escarpment ridges and spurs: open arable* Local Landscape Type) divided by a network of old hawthorn hedgerows (*Old enclosure* Sub-type) with infrequent hedgerow trees.

It is bounded to the south by the A181, to the west by Witch Hill Quarry and to the north and east by farmland of a similar character falling to the steeper wooded slopes of Shadforth Dene.

Landscape designations

The site isn't covered by any national or local designations. Land to the immediate south is identified as Area of Higher Landscape Value (AHLV) in the County Durham Local Plan.

Landscape Strategy

The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (14b iii Shadforth) as having medium-high values for rarity, nature conservation and historic interest and medium or low-medium value for the other attributes assessed. The site itself is of medium value.

Visual environment / visibility

The site is open to view in near and middle-distance views from the A181 between Thornley reservoir and the existing quarry, the adjacent section of the U27.17 and a section of the B6291 to the south. It is widely visible at greater distances on the southern skyline across the valley of the Shadforth Beck to the north up to the high ground of Sherburn Hill and Crime Rigg.

Potential landscape and visual effects

Landscape sensitivity

The site has a simple landform but occupying a relatively sensitive ridgeline location that forms part of the skyline in many views. It contains few mature features that would be vulnerable to development impacts other than low clipped hedgerows. It forms part of a wider landscape with a semi-rural character where active and abandoned quarries are common. It is assessed here as being of moderate sensitivity in the round to the effects of quarrying.

Potential effects on landscape features

The gently sloping topography of the site isn't complex in itself but would be difficult to restore to a natural profile. The most likely working and residual void would be a box-cut with long-term perimeter screen mounding to the east, south and north subject to the availability of materials. Working would entail the loss of a short section of hedgerow and some scrub and grassland along the existing quarry rim.

Potential effects on landscape character

The open agricultural character of the site would be fundamentally altered during site operations. Impacts would depend in part on the extent of extraction, screening and phasing. They would be analogous to the character of operations in the existing quarry to the west. The extent to which the engineered landform was legible in general views would depend on a number of factors. Views into the extraction area from the immediate south and east could be screened by permanent perimeter mounds along the A181. There would be likely to be views over these

from higher ground to the east: the extent to which these would take in restored northern or western faces or not would need detailed investigation and might determine the eastern limit of extraction. There would be the potential for some views into extraction areas over perimeter mounding in wider views to the north, where the site figures as a small but skyline feature. This would need careful analysis and a design response. There would likely to be some localised significant effects on landscape character during the operational period and post restoration at the level of the site and its immediate surroundings. There would be unlikely to be significant effects at the level of the wider landscape.

Potential effects on designated landscapes

There would be no harm to designated landscapes.

Mitigation potential

The key elements are discussed above. It is likely that permanent perimeter mounding would need to be planted with native woodland to assimilate the engineered landform and assist in screening. There is potential on restoration to develop a range of attractive features and habitats within the residual void including crags, buttresses and tailings slopes, bare ground habitat, native woodland, calcareous grassland and wetland.

Potential visual effects

The site does not have a large number of high sensitivity receptors nearby other than isolated properties. The most substantial effects would be in views from roads in the immediate vicinity, some of which could be potentially significant subject to detailed design. Some elements would be visible in longer distance views from the north but typically as small features in wide, visually complex panoramas: the effects would be unlikely to be significant. Effects on the nearest residential properties would need careful consideration as would the effects of any operational or security lighting.

Mitigation potential

The key elements are discussed above.

Conclusion

The working of reserves in this area would be likely to result in some localised but significant landscape and visual effects. Some of these could be reduced through detailed design and particularly in respect of extraction limits and the use of screening landforms.

Site M2: Raisby Quarry - Proposed Eastern Extension

The site and its surroundings

Landscape Character

The site lies in the *East Durham Limestone Plateau* County Character Area which forms part of the larger *East Durham Magnesian Limestone Plateau* National Character Area (NCCA15). The site lies in the *Northern Limestone Escarpment* Broad Character Area which belongs to the *Limestone Escarpment* Broad Landscape Type.

The site lies on the spur between the vale of the Kelloe/Coxhoe Beck to the north and the valley to the south which is drained westward by the Garmondsway Beck and eastward by the headwaters of the Skerne. It is made up of open arable farmland (*Escarpment ridges and spurs: open arable* Local Landscape Type) divided by a fragmented network of old hawthorn hedgerows (*Old enclosure* Sub-type) with infrequent hedgerow trees.

It is bounded to the south by an historic parish boundary over which lies a mosaic of disturbed ground grassland and scrub within the Trimdon Grange Quarry Local Nature Reserve. It is bounded to the west by an old sinuous hedge which forms the boundary of the Coxhoe Quarry permission area and is followed by a public footpath (Kelloe FP11). Parts of the northern boundary are formed by a low gappy hedgerow over which lies the C67. Other parts of the northern boundary and the eastern boundary are undefined, running across arable fields. The site is crossed by an overhead power lines on timber poles.

Landscape designations

The site isn't covered by any national or local designations.

Landscape Strategy

The site lies largely within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'. Land in the north of the site lies within a Landscape Conservation Priority Area with a strategy of 'conserve & restore'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the units the site largely falls within (14b xi Raisby and 14b ix Kelloe) as having elevated value for nature conservation interest but medium, low-medium or low values across the majority of attributes assessed. Part of the site in the north falls within 14b x Coxhoe Park & Kelloe Vale which has elevated values for rarity, nature conservation value, historic interest and recreational value, although these attributes aren't strongly represented within the site itself.

Visual environment / visibility

The site occupies a relatively elevated position in the landscape being on a ridge falling to the north, south and east and is widely visible in middle and longer distance views from other high ground in the area. It is visible at close quarters from the C67 and FP11, and from FP 18 to the north and the U63.3 to the east. To the south it is visible in middle distance views from sections of the B1278 and C24, parts of the footpath network in that area and properties on the northern edge of Trimdon. To the north it is visible as part of the skyline in views from the C67 and footpath Kelloe 31. To the east it is screened in general views by topography and woodland west of Trindon Grange. Visibility from the east is more complex, the site itself being screened by intervening high ground in the permitted extraction area of the working quarry which will in due course be removed.

Potential landscape and visual effects

Landscape sensitivity

The site has a simple landform but with a degree of sensitivity being part of the distinctive 'spur & vale' topography of the escarpment. The landform of the spur has been heavily compromised by the existing quarry in the east. The site contains few mature features that would be vulnerable to development impacts other than the boundary hedgerows and scattered trees. It forms part of a wider landscape with a semi-

rural character where active and abandoned quarries are common. It is assessed here as being of moderate sensitivity in the round to the effects of quarrying.

Potential effects on landscape features

The gently rolling topography of the site isn't complex in itself but would be unlikely to be restored to a natural profile. The most likely working and residual void would be a box-cut with relatively high benched faces to the north, east and south, and open to the east. Working would entail the loss of a short section of hedgerow.

Potential effects on landscape character

The open agricultural character of the site would be fundamentally altered during site operations. Impacts would depend in part on the extent of extraction, screening and phasing. They would be analogous to the character of operations in the existing quarry to the west. By removing more of the spur, including the higher ground, it is likely that the residual faces of the void would be lower than what would otherwise be the final eastern face of the existing quarry – by up to around 10m. This would make it slightly less prominent in views from the east and south. In views from the south west of the site, if the northern and southern extraction limits sat around the 165m contour the effect would be to slightly lower the skyline rather than introduce visible faces into the view. In views from the north the effect would generally again be to lower the skyline slightly. In order to avoid faces being visible in near views structural landscaping would be needed towards the site boundaries: probably similar in scale and character to the existing screening belt along the northern quarry edge. There would be some additional effects arising from the retention of plant in the existing workings (visible in some views from the west) for a longer period than would otherwise be the case and potentially delays to some elements of its restoration. Considered against the baseline of the character of the existing quarry on restoration, and subject to the considerations above, the working of further reserves in this area could be undertaken without significant effects on landscape character during the operational period and post restoration other than at the site level. This would need to be tested.

Potential effects on designated landscapes

There would be no harm to designated landscapes.

Mitigation potential

The key elements are discussed above. It is likely that soils and overburden could be stored in the void or used in progressive restoration to avoid visually intrusive above ground storage. If sufficient lead-in times were allowed, screening on the boundaries could take the form of woodland belts planted in advance. There is potential on restoration to develop a range of attractive features and habitats within the residual void including crags, buttresses and tailings slopes, bare ground habitat, calcareous grassland, scrub and ground and surface water fed wetlands.

Potential visual effects

The site does not have a large number of high sensitivity receptors nearby other than public footpaths, minor roads and isolated properties. There would be unlikely to be significant effects on visual amenity subject to mitigation measures discussed above.

Mitigation potential

The key elements are discussed above.

Conclusion

The working of reserves in this area would be unlikely to result in significant landscape and visual effects subject to detailed investigation and design, and particularly in respect of extraction limits and screening measures towards the site boundaries.

Site M3: Crime Rig Quarry Proposed Northern Extension

The site and its surroundings

Landscape Character

The site lies in the *East Durham Limestone Plateau* County Character Area which forms part of the larger *East Durham Magnesian Limestone Plateau* National Character Area (NCCA15). The site lies in the *Northern Limestone Escarpment* Broad Character Area which belongs to the *Limestone Escarpment* Broad Landscape Type.

The site lies in the gently sloping head of the shallow valley of the Sherburn Hill Burn. It is made up of open arable farmland (*Escarpment ridges and spurs: open arable* Local Landscape Type) divided by a network of old hawthorn hedgerows (*Old enclosure* Sub-type) with infrequent hedgerow trees.

It is bounded to the south by the B1283, over which lies the existing Crime Rig Quarry, and to the north east and west by open farmland of a similar character. The Haswell Moor wind farm lies to the immediate north and east.

Landscape designations

The site isn't covered by any national or local designations.

Landscape Strategy

The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'enhance'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (14b ii Sherburn) as having elevated values for rarity and nature conservation interest but medium or low-medium values across the majority of other attributes assessed.

Visual environment / visibility

The site is visible in relatively near but shallow views from properties in Churchill Terrace, and in places from the B1283 between Churchill Terrace and the site underpass. It is visible in only very shallow views east of that point. It is visible in shallow views from a short section of the U20.13 west of Haswell Moor Farm. It is not otherwise generally visible from public vantage points in the wider landscape.

Potential landscape and visual effects

Landscape sensitivity

The site has a simple landform. It contains few mature features that would be vulnerable to development impacts other than low clipped hedgerows. It forms part of a wider landscape with a semi-rural character where active and abandoned quarries are common, including the adjacent Crime Rig. It is assessed here as being of low-moderate sensitivity in the round to the effects of quarrying.

Potential effects on landscape features

The gently sloping topography of the site isn't complex in itself but would be difficult to restore to a natural profile. The most likely working and residual void would be a box-cut with long-term perimeter screen mounding to the west and north subject to the availability of materials. Working would entail the loss of a short section of hedgerow.

Potential effects on landscape character

The open agricultural character of the site would be fundamentally altered during site operations. Impacts would depend in part on the extent of extraction, screening and phasing. They would be analogous to the character of operations in the existing quarry to the west. The extent to which the engineered landform was legible in general views would be largely governed by the extraction limit in the northwest corner of the site and the deployment of screening mounds in the west and north. There would be unlikely to be significant effects on landscape character during the operational period and post restoration other than at the site level.

Potential effects on designated landscapes

There would be no harm to designated landscapes.

Mitigation potential

The key elements are discussed above. It is likely that perimeter mounds to the west and north would control visibility into the extraction area and particularly if the very north-western corner was excluded. It is likely that visibility from the adjacent section of the B1283 would be largely controlled by existing planting if the site worked from east to west. It is likely that permanent perimeter mounding would need to be planted with native woodland to assimilate the engineered landform and assist in screening. There is potential on restoration to develop a range of attractive features and habitats within the residual void including crags, buttresses and tailings slopes, bare ground habitat, native woodland, calcareous grassland and wetland.

Potential visual effects

The site does not have a large number of high sensitivity receptors nearby other than residential properties as Churchill Terrace and isolated properties. It would be unlikely to have significant visual effects subject to mitigation measures discussed above. In particular working from east to west would reduce effects on Churchill Terrace. The effects of any operational or security lighting would need to be carefully considered.

Mitigation potential

The key elements are discussed above.

Conclusion

The working of reserves in this area would be unlikely to result in significant landscape and visual effects subject to detailed design and particularly in respect of the use of direction of working and screening landforms.

Site W1: Crime Rigg Quarry Waste Infilling

The site and its surroundings

Landscape Character

The site lies in the *East Durham Limestone Plateau* County Character Area which forms part of the larger *East Durham Magnesian Limestone Plateau* National Character Area (NCCA15). The site lies in the *Northern Limestone Escarpment* Broad Character Area which belongs to the *Limestone Escarpment* Broad Landscape Type.

The site lies on a low ridge between the shallow valleys of the Sherburn Hill Burn and the Shadforth Beck. It is an operational quarry made up of an open void with perimeter soil mounds and structure planting. It is bounded to the north by structure planting along the B1283, over

which lies the quarry access road. It is bounded to the south and east by structure planting over which lies open farmland. The Haswell Moor wind farm lies to the north and east.

Landscape designations

The site isn't covered by any national or local designations.

Landscape Strategy

The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (14b ii Sherburn) as having elevated values for rarity and nature conservation interest but medium or low-medium values across the majority of other attributes assessed.

Visual environment / visibility

The site is visually contained being within the void of the existing quarry with established structure planting to the site boundaries. There are shallow views into the site over and through perimeter vegetation from the B1283 to the east and from sections of the U27.17 and footpaths on high ground to the south.

Potential landscape and visual effects

Landscape sensitivity

The site is an operational quarry. It contains no mature features but has an approved restoration to a nature conservation end use including areas of limestone grassland. It is assessed here as being of low-moderate sensitivity in the round to the effects of infilling.

Potential effects on landscape features

Importing materials could result in a range of possible landforms depending on volume – varying from partial fill with some retained faces to full restoration back to pre-development contours. No mature landscape features would be affected.

Potential effects on landscape character

There would be unlikely to be significant effects on landscape character during the operational period and post restoration. Effects during the operational phase would be likely to be low due to its visual containment: some site operations could be partially visible in localised views during the later stages of operation depending on the extent of infilling. The residual effect could vary from neutral to beneficial and would depend on the extent of fill, and the extent to which the nature conservation interest of the approved restoration was maintained in the final land uses.

Potential effects on designated landscapes

There would be no harm to designated landscapes.

Mitigation potential

There are a range of beneficial restoration scenarios depending on the volume of fill, varying from partial infilling to a nature conservation end use, to restoration to predevelopment levels and agricultural character. The highest level of landscape mitigation would be likely to arise from restoration to something close to original levels and to an enhanced agricultural character with a high nature conservation value: limestone grassland, native woodland and species rich hedges.

Potential visual effects

The proposals would be unlikely to have significant visual effects due to the degree of visual containment. Some site operations could be partially visible in localised views from the B1283 during the later stages of operation depending on the extent of infilling, and in distant views from the U27.17 and footpaths to the south where they would form a small part of wide panoramic views.

Mitigation potential

The key elements are discussed above.

Conclusion

The importation of waste would be unlikely to result in significant landscape and visual effects subject to detailed design and particularly in respect of final restoration.

Site M4: Boldron Cross Lanes Proposed New Site

The site and its surroundings

Landscape Character

The site lies in the Dales Fringe County Character Area which forms part of the larger Pennine Dales Fringe National Character Area (NCA22). It lies in the Barningham, Brignall and Rokeby Character Area which belongs to the Gritstone Vale Broad Landscape Type.

The site lies on very gently rolling land falling north-eastwards towards the Manyfold Beck and south-eastwards towards the Tutta Beck. The site is largely made up of mixed farmland (*Vale farmland: wooded pasture* Local Landscape Type), partly cropped as arable and partly permanent pasture including some poorly drained rush pasture in the south-west. The farmland is divided by a relatively intact network of old hedgerows (*Old enclosure* Sub-type) with scattered hedgerow trees. Some hedgerows, particularly along the site perimeter, are relict and replaced by wire fences. The site is crossed by the B6277 which is followed by a narrow belt of broadleaved trees. The western part of the site contains a broadleaved woodland, Princess Charlotte Wood, the northern end of which contains two artificial ponds. The site is crossed by three footpaths: Rokeby FP 7, 8 and 14. The site excludes but encloses a group of properties beside the B6277: Ivy Cottage, Smithy Cottage and The Smithy. An isolated property at Cross Lanes sits between the site and the A66.

The western boundary is formed by a fence, the remains of an estate shelterbelt, followed by the historic parish boundary, over which lies farmland of a more pastoral character and finer grain. The southern boundary is formed by a mixture of fences, hedges and highway vegetation along the A66. The northern boundary is formed by the Manyfold Beck, followed in places by sporadic trees and scrub, over which lies farmland of a similar character. The eastern boundary is followed by a fence with occasional trees and shrubs over which lie pastures around Streetside Farm.

The landscape baseline in the centre and east of the site is likely to change in the near future with the proposed dualling of the A66 and the development of a new junction at 6 Cross Lanes which is likely to take the form of an overbridge.

Landscape designations

The site lies in an area identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan.

Landscape Strategy

The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Conservation Priority Area (LCPA) with strategies of 'conserve and enhance' and 'conserve and restore'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (11a I Barningham and Brignall) as having medium-high value for the majority of the attributes assessed. The site itself is typical of the wider assessment unit and is of broadly medium-high value.

Visual environment / visibility

The site is visible in shallow views from receptors in the vicinity. It is visible at close quarters from the A66 in largely open views, including from a layby west of Streetside Farm. The western part of the site is open to view from the B6277. The eastern part of the site is screened (summer) or filtered (winter) by roadside vegetation. It is visible at close quarters from the footpaths crossing the site, and in the immediate area, and from adjacent residential properties at Ivy Cottage, Smithy Cottage, The Smithy and Cross Lanes. It does not figure prominently in wider views of the area due to the nature of the topography and the shallowness of the majority of views.

Potential landscape and visual effects

Landscape sensitivity

The site has a simple landform. It contains many mature features that would be vulnerable to development impacts including areas of broadleaved woodland, old hedges and trees. It forms part of a wider landscape with a strongly rural character although this is eroded to some degree in the immediate locality by the busy A66. I would assess it as being of moderate-high sensitivity to the effects of quarrying.

Potential effects on landscape features

The gently sloping topography isn't complex in itself but would be impossible to restore to a natural profile in the absence of imported material. The most likely residual landform would be an open void with permanent perimeter screen mounding to the A66 along the B6277 and along the site's northern boundaries. It is difficult at this stage to anticipate how screening landforms would be reconciled with the proposed approach roads and overbridge east of Cross Lanes. It can be assumed that the majority of surface features within the site, including Princess Charlotte Wood and internal hedges and trees would be removed.

Potential effects on landscape character

The open agricultural character of the site would be radically altered during site operations and attractive features including broadleaved woodland, old hedgerows and trees would be lost. Impacts would depend in part on the extent and phasing of extraction and the development of screening measures. It could be anticipated that continuous and permanent screening mounds would be required along the A66, the B6277 and the site's northern boundary and that these would potentially be intrusive engineered features in themselves, obstructing currently open and attractive views. It isn't clear at this stage whether screening into extraction areas from elevated sections of the proposed A66 overbridge junction screening could be achieved. It could be anticipated that some operational areas would be overlooked at close quarters. On restoration there would be potential for a substantial residual effect on the character of the landscape at a local level arising from views into the void and the retention of screening landforms. The effect on the character of the wider landscape would be lower given the general shallowness of views, subject to appropriate mitigation. There would be potentially significant cumulative effects in relation to the existing Hulands Quarry workings and Kilmond Wood Quarry and particularly in relation to the combined effects of perimeter mounds along the A66.

Potential effects on designated landscapes

There would be localised but significant harm to the special qualities of the AHLV, particularly in respect of the loss of mature landscape features and attractive views, and the appearance of operational areas and screening landforms.

Mitigation potential

The key elements are discussed above. Within the quarry void there would be some potential to use landform replication techniques including restoration blasting to leave exposed faces closer in character to natural crags although a fully naturalistic solution would not be possible in this situation. There is potential on restoration to develop a range of attractive features and habitats including crags, buttresses and scree slopes, limestone pavement and other bare ground habitat, native woodland, calcareous grassland and groundwater fed wetland.

Potential visual effects

There would be likely to be effects of a high magnitude in close views from nearby receptors including roads, footpaths and residential properties. Views into the extraction area could be controlled by perimeter mounding, although this would need to be extensive and could be both intrusive in itself and obstruct attractive views. It could be anticipated that it would not be fully effective in views from elevated parts of the proposed A66 overbridge junction. Some elements would be visible in long distance views but as small features in wide, visually complex panoramas. The effects of operational or security lighting would need careful consideration.

Mitigation potential

The key elements are discussed above.

Conclusion

The working of the reserves in this area would be likely to result in some significant effects on a valued landscape and localised significant visual effects.

The site and its surroundings

Landscape Character

The site lies in the West Durham Coalfield Character Area which forms part of the larger Coalfield Pennine Fringe National Character Area (NCA16). It lies in the Wear Floodplain Broad Character Area which belongs to the Coalfield Valley Floodplain Broad Landscape Type.

The site lies on the narrow floodplain of the River Wear. It is made up of open arable farmland (*Floodplain farmland: arable* Local Landscape Type) divided by a relict network of old field boundaries, undefined in places and with sporadic vegetation in others. The site wraps around a small sewerage treatment works. It is crossed by a footpath in the east (Wolsingham FP No 126). It is bounded to the south by the Weardale Railway, over which lies the tree-lined River Wear. The northern boundary in the east is formed by the Gallows Beck which is followed in places by a line of trees and lies below a steeply sloping river terrace of pasture containing scattered mature trees. Further west the northern boundary is formed by a low gappy hedge. The western boundary is formed by fences followed by very sporadic vegetation over which lies pastoral farmland including the Wolsingham Show field. The eastern boundary follows the Bradley Beck.

Landscape designations

The site lies in an area identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan.

Landscape Strategy

The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Conservation Priority Area (LCPA) with a strategy of 'conserve and restore'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (9c I Wear Floodplain West) as having medium-high value for the majority of the attributes assessed, with high scenic value and medium recreational value. The site itself is typical of the wider assessment unit and is of broadly medium-high value.

Visual environment / visibility

The site sits low in the landscape. It is visible in shallow views from some receptors on the valley floor. These include the Weardale Railway, which has direct views at close quarters, and footpath 126 which crosses the site. Parts of the site are visible in shallow views from the A689 east and north of the site although it is largely screened from view by intervening topography and by roadside hedges and trees, the latter to a greater degree in summer months. West of the site it is more visible in shallow views across the floodplain over low roadside walls. The area is overlooked from vantage points on higher ground to the north and south. From the north it is visible from parts of the road and footpath networks on the northern slopes of the valley. From the south it is visible from parts of the footpath network and access land on the southern slopes of the valley, including the Weardale Way.

Potential landscape and visual effects

Landscape sensitivity

The site has a simple landform and contains few mature features that would be vulnerable to development impacts. It forms part of a wider landscape with a strongly rural character and high value and is a component of views of a high scenic quality. I would assess it as being of moderate-high sensitivity to the effects of mineral working

Potential effects on landscape features

The effects of mineral extraction on the natural topography of the floodplain will depend in part on the position of the water table but are likely to result in the formation of waterbodies. There are few mature surface features.

Potential effects on landscape character

The open agricultural character of the site would be substantially altered during site operations. Fixed plant would be likely to remain in the existing workings. The principal effects would arise from the appearance of mobile plant and areas of bare and disturbed ground. Impacts would depend in part on the extent and phasing of extraction operations, the development of screening measures, and the extent and phasing of progressive restoration. The impact on the rural character of the local landscape could be high in some views – particularly from higher ground

where mitigation would be difficult - and low in others subject to those factors. There would be some cumulative effects with the existing workings.

Potential effects on designated landscapes

There would be some harm to the special qualities of the AHLV, particularly in respect of the effects of site operations in attractive views across the AHLV.

Mitigation potential

The longer-term effects of operations could be mitigated by restoring the site to land uses and features appropriate to, or characteristic of, the floodplain including naturalistic waterbodies, wet woodland and wet pasture. With that mitigation, long term effects on landscape character could be low, neutral or beneficial. The short and medium term effects of the operational site in views from the valley floor could be mitigated to some degree by advanced planting to the northern boundary in the west, offsite hedgerow works east of the Bradley Beck and screening features along the Weardale Railway. Mitigation of effects in views from higher ground would be more difficult although effects could be reduced to some degree by progressive restoration and seeding of operational ground.

Potential visual effects

The principal effects would arise from the appearance of mobile plant and areas of bare and disturbed ground in shallow views from the valley floor and in wider views from higher ground. As noted above effects would depend in part on the extent and phasing of extraction operations, the development of screening measures, and the extent and phasing of progressive restoration. Key receptors include the A689, public rights of way (including the Weardale Way) and the Weardale Railway. Visual effects could be high in some views – particularly from higher ground where mitigation would be difficult - and low in others subject to those factors. There would be some cumulative effects with the existing workings. Some elements would be visible in longer distance views but as small features in wide, visually complex panoramas. The effects of operational lighting would need careful consideration.

Mitigation potential

The key elements are discussed above.

Conclusion

The working of the of reserves in this area would be likely to result in some significant effects on a valued landscape and localised significant visual effects during the operational period. Longer term effects would depend on the nature of the restoration but from the information provided would be likely to be low, neutral or beneficial.

Site M6: Thrislington West Quarry - Allocation of additional Permian sand reserves

The site and its surroundings

Landscape Character

The site lies in the East Durham Limestone Plateau County Character Area which forms part of the larger East Durham Magnesian Limestone Plateau National Character Area (NCCA15). It lies in the *Limestone Escarpment Ridge* Broad Character Area which belongs to the *Limestone Escarpment* Broad Landscape Type.

The site lies within the operational part of Thrislington Quarry (West).

Landscape designations

The site isn't covered by any national or local designations. Land to the south and west is identified as Area of Higher Landscape Value (AHLV) in the County Durham Plan.

Landscape Strategy

The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (14a vi Thrislington & Cornforth) as having medium-high value for nature conservation interest but low or low-medium value for the other attributes assessed. The operational area concerned is of low value.

Visual environment / visibility

The site is well contained in views from the wider landscape by perimeter landforms and vegetation.

Potential landscape and visual effects

Landscape sensitivity

The site lies is an operational quarry and is assessed here as being of low sensitivity to the effects of mineral extraction.

Potential effects on landscape features

The proposals would entail operations of a similar character to those already on site.

Potential effects on landscape character

The proposals would have no significant effects on the character of the landscape.

Potential effects on designated landscapes

There would be no effect on designated landscapes

Mitigation potential

Existing mitigation measures are adequate to their purpose.

Potential visual effects

The proposals would have no visual significant effects

Mitigation potential

Existing mitigation measures are adequate to their purpose.

Conclusion

The working of reserves in this area would be unlikely to result in any significant landscape or visual effects.

Site M7: Thrislington Quarry Magnesian Limestone - Consideration of the potential for the current restrictive sales conditions for limestone at Thrislington East and West to be relaxed

See Summary of Consultation Regulation 18 Notice of intent to prepare a Development Plan Document and Minerals and Waste Call for Sites (September 2021).

Site M8/W2: Cold Knuckle Magnesian Limestone and inert infill

The site and its surroundings

Landscape Character

The site lies in the *East Durham Limestone Plateau* County Character Area which forms part of the larger *East Durham Magnesian Limestone Plateau* National Character Area (NCCA15). The site lies in the *Northern Limestone Escarpment* Broad Character Area which belongs to the *Limestone Escarpment* Broad Landscape Type.

The site lies on the southern edge of the spur between Cassop Vale and Old Quarrington Vale. It is made up of currently operational areas of the Old Quarrington Quarry including parts of the un-restored former Cold Knuckles Quarry. To the north lies further areas of operational quarry. To the south lies an area of former mineral workings now managed as a Local Nature Reserve.

Landscape designations

The site isn't covered by any national or local designations.

Landscape Strategy

The site lies partly within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance' and partly within a Landscape Conservation Priority Area (LCPA) with strategy of 'conserve & restore'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (14b vi Quarrington Hill) as having elevated values for rarity, nature conservation interest and recreational value and medium or low-medium values across the other attributes assessed.

Visual environment / visibility

The site occupies sloping elevated ground and is prominent in views from the south, south-east and south-west.

Potential landscape and visual effects

Landscape sensitivity

The site is an operational quarry and is of low sensitivity to the type of development proposed.

Potential effects on landscape features

The proposals would not entail any effects on landform or landscape features. The removal of limestone and its replacement with inert materials would be undertaken broadly within the balance of cut and fill provided for in the approved scheme. There would be no material effect on the final restoration.

Potential effects on landscape character

There would be unlikely to be significant effects on landscape character during the operational period and post restoration. The proposals would entail some changes to the approved working method. These would be unlikely to change the outward appearance of the operations to a substantial degree. The restoration of the site would be likely to be identical or very close to that of the approved scheme.

Potential effects on designated landscapes

There would be no harm to designated landscapes.

Mitigation potential

Mitigation measures form part of the approved scheme: additional measures are not required.

Potential visual effects

The proposals would be unlikely to have significant visual effects as they would not change the outward appearance of operations to a substantial degree.

Mitigation potential

As above.

Conclusion

The working of reserves in this area would be unlikely to result in significant landscape and visual effects subject to detailed design.

Site M9/W3: Old Quarrington Quarry (Quarrington North). The 35-hectare site as proposed by Tarmac

The site and its surroundings**Landscape Character**

The site lies in the *East Durham Limestone Plateau* County Character Area which forms part of the larger *East Durham Magnesian Limestone Plateau* National Character Area (NCCA15). The site lies in the *Northern Limestone Escarpment* Broad Character Area which belongs to the *Limestone Escarpment* Broad Landscape Type.

The site occupies a substantial part of the spur between Cassop Vale and Old Quarrington Vale. The northern part of the site is made up of the steeply sloping vale-side of ancient semi-natural woodland (*Lowland woods: denes & bluffs* local landscape type) and magnesian limestone grassland with scattered scrub (*Escarpment valley farmland: steep pastures* local landscape type) which forms part of a wider feature forming the Cassop Vale National Nature Reserve. The southern part of the site is largely made up of open pasture (*Escarpment ridges & spurs: open pasture* local landscape type) with some steeper vale-side pasture with scattered scrub in the south-west.

To the north of the site lies open arable farmland on the floor of Cassop Vale. To the south of the site lie operational areas of the existing Old Quarrington Quarry. The site is bounded in the east by an unclassified road (U20.16) and to the west by a combination of hedges and wire fences over which lies farmland of a similar character.

Landscape designations

The site lies within an area identified in the County Durham Plan as an area of Higher Landscape Value (AHLV).

Landscape Strategy

The northern part of the site and steeper slopes in the south-west of the site lie within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Conservation Priority Area (LCPA) with strategies of 'conserve', 'conserve & restore' and 'conserve & enhance'. The southern part of the site lies within a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (14b iv Cassop Vale) as having elevated values across the majority of attributes assessed, with notably high values for rarity, representativeness, and nature conservation value.

Visual environment / visibility

The site occupies sloping elevated ground and is prominent in views from a wide range of near, middle distance and long-distance views to the north, north-east and north-west in which the Cassop Vale spur is a notable landmark. It sits in the backdrop to views of the Durham Castle and Cathedral World Heritage Site, behind which it forms the southern skyline.

Potential landscape and visual effects

Landscape sensitivity

The site occupies probably the most notable, attractive, and intact spur of the limestone escarpment which supports areas of ancient woodland and rare magnesian limestone grassland. It is of high sensitivity to the effects of mineral extraction taken as a whole. Within the site sensitivity varies with the steep vale-side slopes highly sensitive and the open farmland to the south of moderate-high sensitivity.

Potential effects on landscape features

The proposals relate to the extraction of sand as an addition to the limestone within the permission area, and to the importation of inert material. There is currently no approved working method or restoration strategy for the limestone reserves in this area. It is likely that working the limestone would have high impact on landscape features including natural topography, ancient woodland, and limestone grassland if the full extent of reserves was worked, including the outcrop on the steeper northern slopes. It isn't possible to determine in the absence of a working method whether working additional basal sand would add to those effects, or whether winning additional mineral by deepening the quarry would be offset by forgoing limestone under the more sensitive features.

Potential effects on landscape character

As above, the effect of working the full extent of the limestone outcrop could have harmful effects of a high magnitude on local and wider landscape character. It isn't possible at this stage to determine the consequences of working additional sand reserves. The importation of waste to restore to original levels would be beneficial in maintaining the integrity of the spur as a topographical feature.

Potential effects on designated landscapes

As above, working the full extent of the limestone reserves would be harmful to the special qualities of the AHLV – particularly in respect of its condition, rarity, scenic quality and conservation interest. It isn't possible at this stage to determine the consequences of working additional sand reserves or importing waste material.

Mitigation potential

The key mitigation measure for the working of reserves in this area would be to avoid working on the steeper vale-side slopes. In particular the northern slopes beyond the NNR boundary / 165m contour but also the localised steep slopes in the south-west below around the 170m contour. Mitigating effects on ancient woodland and primary limestone grassland to any substantial degree would only be possible through avoidance. At this stage it isn't possible to determine how working additional sand reserves would affect the potential for this. The importation of waste to restore to original levels could be beneficial in maintaining the integrity of the spur as a topographical feature.

Potential visual effects

The steeper slopes in the north of the site are prominent and widely visible from a range of receptors to the north. Working the full extent of the reserves would be likely to result in some significant adverse effects on visual amenity. Effects would be substantially lower if those slopes were retained. It isn't possible at this stage to determine the consequences of working additional sand reserves or importing waste material.

Mitigation potential

As above. The key mitigation measure for the working of reserves in this area would be to avoid working on the steeper vale-side slopes.

Conclusion

The working of limestone reserves in the permission area could result in significant landscape and visual effects depending on the lateral extent of extraction. It is not possible on the information provided to determine what the consequences would be of working additional sand reserves or importing waste material.

Site M9/W3: Old Quarrington Quarry (Quarrington North). The 24-hectare site as considered further by the Council

The site and its surroundings

Landscape Character

The site lies in the East Durham Limestone Plateau County Character Area which forms part of the larger East Durham Magnesian Limestone Plateau National Character Area (NCCA15). The site lies in the Northern Limestone Escarpment Broad Character Area which belongs to the Limestone Escarpment Broad Landscape Type.

The site occupies the high ground of the spur between Cassop Vale and Old Quarrington Vale. It is made up of open pasture (Escarpment ridges & spurs: open pasture local landscape type) divided by post-medieval hedges (Old enclosure subtype).

To the north lies the northern flanks of the spur. This is comprised of a steeply sloping vale-side of ancient semi-natural woodland (Lowland woods: denes & bluffs local landscape type) and magnesian limestone grassland with scattered scrub (Escarpment valley farmland: steep pastures local landscape type) which forms part of a wider feature forming the Cassop Vale National Nature Reserve.

To the south of the site lie operational areas of the existing Old Quarrington Quarry. The site is bounded in the east by an unclassified road (U20.16) and to the west by a combination of hedges and wire fences over which lies farmland of a similar character, together with some steeper vale-side pasture with scattered scrub in the south-west.

Landscape designations

The site is not covered by any national or local landscape designations. Land to the immediate north lies within an area identified in the County Durham Plan as an area of Higher Landscape Value (AHLV).

Landscape Strategy

The site lies within a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (14b iv Cassop Vale) as having elevated values across the majority of attributes assessed, with notably high values for rarity, representativeness, and nature conservation value.

Visual environment / visibility

The site occupies elevated ground and is visible in views from a wide range of near, middle distance and long-distance views to the north, north-east and west in which the Cassop Vale spur is a notable landmark. It sits in the backdrop to views of the Durham Castle and Cathedral World Heritage Site from the north-west, behind which it forms the southern skyline.

Potential landscape and visual effects

Landscape sensitivity

The site occupies part of the most notable, attractive, and intact spur of the limestone escarpment. The northern flanks of the spur are of high sensitivity to the effects of mineral extraction. The site is of moderate-high sensitivity given its role as part of the skyline in wider views.

Potential effects on landscape features

Extraction in the extension area would involve extraction activities on the skyline. Being worked from the south, the main body of the void would be largely screened in general views by intervening landform. This would depend in part in views from the south on its relationship with earlier extraction phases within the existing quarry. It would depend in part in views from the north and west on the extraction limit and the design of any perimeter soil mounding. Some operational activities and features such as soil stripping and mounding, areas of bare soils/ rock head etc could be visible on the skyline in views from the north depending on detail (see mitigation potential below). The longer-term effect in those views is likely to be of a general lowering of the ridge by around 10m. Whether this appears natural – without artificially straight lines and visual snags in the corners of the void – will depend on detailed design and is difficult to establish with certainty at this stage.

Extraction would involve the removal of some sections of hedgerow. It might be anticipated that this would be offset by the creation of new features on restoration depending on its type.

Potential effects on landscape character

As above, the effects of operations on landscape character would depend on the degree to which incongruous activities or features were introduced onto the skyline during operation and the permanent effect on the topography of the ridge.

Potential effects on designated landscapes

There would be no direct effect on the AHLV to the north but any activities on the skyline or impacts on the natural qualities of the landform could affect its scenic qualities and distinctiveness. The potential effects on the nature conservation interests of the NNR – which form part of the special qualities of the AHLV - such as hydrological effects on flushes and other effects on vegetation would need detailed assessment.

Mitigation potential

The effects of the precise extent of the void and activities on the skyline would need detailed investigation to inform design. In principle site operations and intrusive features should be kept to a minimum on the skyline, and the void and any screening landforms (if required) should be designed to maintain a natural appearance to the ridge top. The importation of waste to restore to original levels might be beneficial in maintaining the integrity of the spur as a topographical feature but could involve more operational activities on the skyline. Restoration to a

residual void could be done with lower operational impacts but could result in some modification to the natural landform being visible some views and particularly those from higher ground to the north and west.

Potential visual effects

The site isn't viewed in near views from public rights of way. It is visible in filtered views from the U20.16 at close quarters. It directly abuts the NNR, which is access land, and has views into the area from its southern edge. There would be potential for some significant effects there unless adequately mitigated. Potential effects in wider views are described above. The site is visible in the backdrop to the World Heritage Site in some key views from the north-west (Wharton Park, Flass Vale) and operations on the skyline could be potentially harmful to its setting. This will need careful assessment and is subject to the same considerations on operational activities / landform discussed above.

Mitigation potential

The potential for mitigation in wider views is described above. Near views into the site are typically shallow and could be potentially controlled with low mounding.

Conclusion

The working of limestone reserves in the permission area could be undertaken without significant landscape or visual effects if appropriately designed. Given its role as part of a sensitive landscape feature and its visibility in important views there remains potential for significant effects and this will need to be assessed in detail to inform the extent of extraction and the detailed design of site operations and restoration.

The site and its surroundings

Landscape Character

The site lies in the Dales Fringe County Character Area which forms part of the larger Pennine Dales Fringe National Character Area (NCA22). It lies in the Boldron and Lartington Broad Character Area which belongs to the Gritstone Vale Broad Landscape Type.

The site lies on a gently sloping plateau rising southwards from the shallow valley of the Thorsgill Beck to Kilmond Scar. The site is largely made up of farmland (*Vale farmland: pasture* Local Landscape Type) divided by a network of old hedgerows and dry-stone walls (*Old enclosure* Sub-type) preserving in places the alignment of medieval strip fields and relics of medieval cultivation (rig & furrow). Hedgerow trees are locally abundant, particularly in the south and east. The historic parish boundary between Bowes and Boldron crossed the site in the east. There are localised areas of modified terrain previously worked for limestone. There is an area of newly planted woodland in the south on the site of the former North Side Quarry. A belt of new woodland in the south and mature trees in the north form the western boundary. There are two farmsteads within the site (North Side and Lamb Hill) comprised of a range of traditional and modern buildings, and derelict farm buildings at Bell Roods.

The site is crossed by footpaths (Bowes FP No's 5 and 6) in the south and a bridleway (Bowes BW No 7) in the west. It is bounded to the south by the A66 (T) over which lies Kilmond Wood Quarry, to the west by Hulands Quarry, and to the north and east by farmland of a similar character.

Landscape designations

The site lies in an area identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan.

Landscape Strategy

The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Conservation Priority Area (LCPA) with a strategy of 'conserve and restore'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger unit the site forms part of (11c I Boldron) as having medium-high value for the majority of the attributes assessed. The site itself is typical of the wider assessment unit and is of broadly medium-high value.

Visual environment / visibility

The site is visible in shallow views from receptors in the vicinity. It is visible at close quarters from PROWs (Public Rights of Way) 5, 6 and 7. From the A66 (T) to the south it is open to view from a 700m section of the road - including a layby - which enjoys panoramic views across the upland fringes to the moorlands of the North Pennines AONB. Views into the site are locally screened by young woodland and shallow roadside cuttings. From the A67 to the north it is visible from a stretch between Pearson moor and South Thornberry where it forms part of a middle-distance skyline rising towards Kilmonds. It is visible in near views from West Lane, the western approach to Boldron. It is visible in wider panoramic views from high ground to the north and west at greater distances (5 – 15km).

Potential landscape and visual effects

Landscape sensitivity

The site has a simple plateau landform. It contains many mature features that would be vulnerable to development impacts including historic farm buildings, areas of woodland, medieval rigg & furrow, old walls, old hedges and trees. It forms part of a wider landscape with a strongly rural character although this is eroded to some degree in the immediate locality by existing quarries and the busy A66. I would assess it as being of moderate-high sensitivity to the effects of quarrying.

Potential effects on landscape features

The gently sloping topography isn't complex in itself but would be difficult to restore to a natural profile. The most likely residual landform would be an open void with permanent perimeter screen mounding to the south and a raised landform similar to that employed at Hulands to the north. Whether these would be effective in screening all views into the remaining void is a matter that would need detailed assessment. It can be assumed that the majority of surface features within the site, including most of the farm buildings, earthworks, walls, hedges and trees would be removed.

Potential effects on landscape character

The open agricultural character of the site would be radically altered during site operations and many attractive features would be lost. Impacts would depend in part on the extent and phasing of extraction and the development of screening measures. On restoration there would be potential for a substantial residual effect on the character of the landscape at a local level arising from the combination of the void and screening landforms which would run against the general north-south grain of the land-cover. The effect on the character of the wider landscape would be lower given the general shallowness of views, subject to appropriate mitigation. There would be potentially significant cumulative effects in relation to the existing Hulands Quarry workings and Kilmond Wood Quarry in views of the southern skyline from the north, and in relation to the combined effects of perimeter mounds along the A66.

Potential effects on designated landscapes

There would be some harm to the special qualities of the AHLV, particularly in respect of the loss of landscape features and attractive views.

Mitigation potential

The key elements are discussed above. Within the quarry void there would be some potential to use landform replication techniques including restoration blasting to leave exposed faces closer in character to natural crags although a fully naturalistic solution would not be possible in this situation. There is potential on restoration to develop a range of attractive features and habitats including crags, buttresses and scree slopes, limestone pavement and other bare ground habitat, native woodland, calcareous grassland and groundwater fed wetland.

Potential visual effects

As noted above the key views are near and middle-distance views from the north and south. Views into the extraction area from the south could be controlled by perimeter mounding, although this would need to be relatively extensive and could be both intrusive in itself and obstruct attractive views. There would be potential for significant effects in near and middle-distance views from the north. Views into the extraction area could in principle be controlled by a large screening landform although the phased construction of this would be likely to have adverse effects in itself. There would be likely to be effects of a high magnitude in views from close quarters from adjacent and diverted rights of way. Some elements would be visible in long distance views but as small features in wide, visually complex panoramas. The effects of operational or security lighting would need careful consideration.

Mitigation potential

The key elements are discussed above.

Conclusion

The working of the full extent of reserves in this area would be likely to result in some significant effects on a valued landscape and localised significant visual effects.

Site M11: Eldon Minerals

The site and its surroundings

Landscape Character

The site lies partly within *the West Durham Coalfield* County Character Area which forms part of the larger *Durham Coalfield Pennine Fringe* National Character Area (NCA 16) and partly within the *East Durham Limestone Plateau* County Character Area which forms part of the larger *East Durham Magnesian Limestone Plateau* National Character Area (NCA 15). It lies partly within the *Central Wear Valley* Broad Character Area which belongs to the *Coalfield Valley* Broad Landscape Type and partly within the *Southern Limestone Escarpment* Broad Character Area which belongs to the *Limestone Escarpment* Broad Landscape Type.

The site lies on the edge of a low plateau made up of gently rolling land in the east and steeply sloping (1:6) land in the west, modified in the south by the void of the existing Eldon Quarry clay pit. It is made up of the existing quarry void, areas used for soils, overburden and brick-shale storage, including screening landforms planted with trees, and agricultural land bounded by hedges and fences. It is bordered to the west by Eldon Brickworks, to the south by Road C34, to the east by an access track to Eldon Blue House Farm and to the north by open farmland. It is crossed in the south by a public footpath (Eldon No.25)

The surrounding land is in agricultural use, mostly arable with some grazing. To the north and east is the restored land of the former Blackie Boy Colliery with extensive areas of coniferous woodland and reclaimed pasture. South of Road C34 is the 18 recently restored Eldon Deep opencast coal site, a mixture of farmland and broadleaved woodland.

The site has permission for mineral extraction under CMA/7/63.

Landscape designations

The site does not lie in an area covered by any national or local landscape designations. Land to the north is identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan.

Landscape Strategy

The site lies largely within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger units the site forms part of (14c ii Eldon and 8d v Dene Valley) as having generally low-medium or medium value for the majority of the attributes assessed. The site itself is a mixture of low (south-west) and medium value (north and east) landscapes.

Visual environment / visibility

The site sits in a relatively elevated location and contains some sloping ground. It is generally concealed by topography and vegetation in views from the east. It is more open to view from vantage points to the south and west including roads, footpaths and some properties across the Dene Beck valley, and in long distance views from across the Wear valley further west.

The existing quarry void, overburden mounds and stockpiles are visually intrusive in some views from the south and west, mostly within around 1km of the site, but are not particularly prominent in views from the wider landscape. They are generally screened in views from the

east by intervening ground. They are partially or intermittently screened in views from the south and west by intervening buildings and vegetation, and by an existing screening mound in the south of the site.

Potential landscape and visual effects

Landscape sensitivity

The landform of the site is relatively sensitive being on a natural plateau edge, although heavily modified by the existing void in the south. It contains few mature features that would be vulnerable to development. It forms part of a wider landscape with a semi-rural character. I would assess it as being of moderate sensitivity to the effects of mineral extraction.

Potential effects on landscape features

Mineral extraction as provided for by CMA/7/63 would involve a modification of the natural topography leaving a notably artificial and engineered final void. The natural topography of the escarpment is quite muted in this area and is already compromised in places by the existing quarry void. Extraction would entail the removal of sections of mature hedgerow along the eastern and northern boundaries of the existing void.

Potential effects on landscape character

The open agricultural character of the undisturbed parts of the site would be radically altered during site operations. The proposals would involve extending the quarry void eastwards into rising ground, which would increase its effects on landscape character, which would be particularly evident in views from the south and west. Impacts would depend in part on the extent and phasing of extraction and the development of screening measures. On restoration there would be potential for a relatively substantial residual effect on the character of the landscape at a local level arising from the modification of the topography.

Potential effects on designated landscapes

There would be no effect on the special qualities of the AHLV to the north.

Mitigation potential

Under CMA/7/63 it is proposed to work the site progressively in an anti-clockwise direction to reduce operational impacts and leave a bowl-shaped void, and to undertake early hedgerow and tree planting to control some views. Extraction faces and benches would be covered with overburden, inter-burden and soils leaving steep uniform slopes. The base of the quarry void and lower slopes would be restored to species rich pasture and the middle and upper slopes to native broadleaved woodland to help disguise the engineered landform and to help assimilate it into the wider landscape.

Potential visual effects

As the proposals would involve extending the quarry void eastwards into rising ground, there would be potential for significant visual effects in local views, particularly from the south and west, Blue House Farm to the immediate north, and Footpath No.19 to the immediate east. Impacts would depend in part on the extent and phasing of extraction and the development of screening measures. Some elements would be visible in long distance views but as small features in wide, visually complex panoramas. The potential effects of operational lighting would need to be assessed further.

Mitigation potential

Under CMA/7/63 broadleaved woodland has been planted on the existing southern screening mound which would help to screen later phases of development in views from the south and west as it matures especially from lower ground. Under that scheme hedgerows would be planted on the northern and eastern boundaries of the site before works commenced. These would provide a screening function relatively quickly in views from Footpath 19 and Blue House Farm. Woodland planting is proposed between the extraction area and Blue House Farm and early planting would screen the later phases of development as it matured. A soil mound is proposed between this woodland and the void at its closest during Phase 3.

Conclusion

The working of the reserves in this area would be likely to result in some locally significant landscape and visual effects. These could be mitigated to a degree by design as provided for in CMA/7/63.

The site and its surroundings

Landscape Character

The site lies partly within the *West Durham Coalfield* County Character Area which forms part of the larger *Durham Coalfield Pennine Fringe* National Character Area (NCA 16) and partly within the *East Durham Limestone Plateau* County Character Area which forms part of the larger *East Durham Magnesian Limestone Plateau* National Character Area (NCA 15). It lies partly within the *Central Wear Valley* Broad Character Area which belongs to the *Coalfield Valley* Broad Landscape Type and partly within the *Southern Limestone Escarpment* Broad Character Area which belongs to the *Limestone Escarpment* Broad Landscape Type.

The site lies on the edge of a low plateau made up of gently rolling land in the east and steeply sloping (1;6) land in the west, modified in the south by the void of the existing Eldon Quarry clay pit. It is made up of the existing quarry void, areas used for soils, overburden and brick-shale storage, including screening landforms planted with trees, and agricultural land bounded by hedges and fences. It is bordered to the west by Eldon Brickworks, to the south by Road C34, to the east by an access track to Eldon Blue House Farm and to the north by open farmland. It is crossed in the south by a public footpath (Eldon No.25).

The surrounding land is in agricultural use, mostly arable with some grazing. To the north and east is the restored land of the former Blackie Boy Colliery with extensive areas of coniferous woodland and reclaimed pasture. South of Road C34 is the 18 recently restored Eldon Deep opencast coal site, a mixture of farmland and broadleaved woodland.

The site has permission for mineral extraction under CMA/7/63. It is understood that the proposed infilling with waste proposed relates to the void space created by the implementation of that permission rather than the existing void space.

Landscape designations

The site does not lie in an area covered by any national or local landscape designations. Land to the north is identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan.

Landscape Strategy

The site lies largely within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance'.

Landscape Value

The County Durham Landscape Value Assessment (2019) assessed the larger units the site forms part of (14c ii Eldon and 8d v Dene Valley) as having generally low-medium or medium value for the majority of the attributes assessed. The site itself is a mixture of low (south-west) and medium value (north and east) landscapes.

Visual environment / visibility

The site sits in a relatively elevated location and contains some sloping ground. It is generally concealed by topography and vegetation in views from the east. It is more open to view from vantage points to the south and west including roads, footpaths and some properties across the Dene Beck valley, and in long distance views from across the Wear valley further west.

The existing quarry void, overburden mounds and stockpiles are visually intrusive in some views from the south and west, mostly within around 1km of the site, but are not particularly prominent in views from the wider landscape. They are generally screened in views from the east by intervening ground. They are partially or intermittently screened in views from the south and west by intervening buildings and vegetation, and by an existing screening mound in the south of the site.

Potential landscape and visual effects

Landscape sensitivity

The landform proposed in the restoration of CMA/7/63 would be an engineered bowl. I would assess it as being of low sensitivity to the effects of infilling with waste.

Potential effects on landscape features

The restored landform provided for by CMA/7/63 would be an engineered bowl. Infilling with waste to more natural contours close to pre-existing levels would have a beneficial effect. Infilling would be unlikely to affect other landscape features.

Potential effects on landscape character

The extent to which infilling with imported material would have adverse or beneficial effects on landscape character during the operational period would depend on the extent to which it was integrated with extraction operations and whether it would facilitate the development of screening measures or add additional intrusive activities. On restoration there would be potential for a beneficial effect on the character of the landscape relative to the baseline of the approved void through the restoration of a more natural landform.

Potential effects on designated landscapes

There would be no effect on the special qualities of the AHLV to the north.

Mitigation potential

The effects of tipping would depend on the detail of the working method and whether there were opportunities to use imported material to re-instate the landform progressively in a manner that would screen other operations. Restoration could be to a range of land uses, the most beneficial being species rich grassland and native woodland.

Potential visual effects

As noted above the extent to which tipping gave rise to additional effects during the operation period would depend on the working method and the degree of integration of extraction and infilling.

Mitigation potential

As above

Conclusion

The infilling of the void space created by CMA/7/63 could potentially be undertaken without significant landscape and visual effects provided that it was suitably integrated with the extraction process. The long-term effect on the character of the landscape would be likely to be beneficial. The approved landform of CMA/7/63 as mitigated by planting was considered to be acceptable, and its infilling would not therefore be considered essential, but restoration to natural levels would have a lower impact on landscape character.

Please ask us if you would like this document summarised in another language or format:



Braille,



Audio,



Large print.

العربية Arabic, (中文 (繁體字)) Chinese, اردو Urdu,
polski Polish, ਪੰਜਾਬੀ Punjabi, Español Spanish,
বাংলা Bengali, हिन्दी Hindi, Deutsch German,
Français French, Türkçe Turkish, Melayu Malay.

Telephone: 03000 263 403

Email: Spatialpolicy@durham.gov.uk