

Annex F: SA/SEA incorporating SFRA and HRA

Appendix 3e: Assessment of Sites in the Harrogate District

Minerals and Waste Joint Plan

DRAFT

Sustainability Appraisal Report

Appendix 3: Assessment of Sites

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Sustainability Appraisal Score

Score	Description
++	The Site option is predicted to have higher positive effects on the achievement of the SA objective. For example, this may include a highly significant contribution to issues or receptor of regional or wider significance, or to several issues or receptors of local significance.
m+	The Site option is predicted to have moderate positive effects on the achievement of the SA objective. For example, this may include a positive, but not highly positive contribution to issues or receptor of more than local significance, or to several issues or receptors of local significance.
+	The Site option is predicted to have minor positive effects on achievement of the SA objective. For example, this may include a significant contribution to an issue or receptor of more local significance.
0	The Site option will have no effect on the achievement of the SA objective ¹ .
-	The Site option is predicted to have minor negative effects on the achievement of the SA objective. For example, this may include a negative contribution to an issue or receptor of local significance.
m-	The Site option is predicted to have moderate negative effects on the achievement of the SA objective. For example, this may include a negative, but not highly negative contribution to an issue or receptor of more than local significance.
--	The Site option is predicted to have higher negative effects on the achievement of the SA objective. For example, this may include a significant negative contribution to an issue or receptor of more than local significance.
?	The impact of the Site option on the SA objective is uncertain.

¹ This includes where there is no clear link between the site SA objective and the site

MJP14 – Ripon Quarry, North Stainley – ALLOCATED SITE

Site Name	MJP14 Land in Vicinity of Ripon Quarry, North Stainley (XY 430558 476313)
Current Use	Agriculture
Nature of Planning Proposal	Extraction of sand and gravel as proposed extension to existing quarry
Size	30.22ha
Proposed life of site	15 years
Notes	Possible restoration: Lake, reed bed and wet woodland. The site is subject to a planning application (NY/2011/0429/ENV) which is awaiting determination, note the planning application also includes an additional parcel of land to the north of MJP14.

SA FINDINGS SUMMARISE SIGNIFICANT EFFECTS ONLY. A WIDER RANGE OF CONSTRAINTS AND OPPORTUNITIES WERE INITIALLY ANALYSED AND DISTILLED DOWN TO ONLY THOSE WITH THE POTENTIAL TO BE SIGNIFICANT (SEE ALSO SITE ASSESSMENT METHODOLOGY SUMMARY REPORT FOR A FULL LIST OF CONSTRAINTS AND OPPORTUNITIES).

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
1. To protect and enhance biodiversity and geo-diversity and improve habitat connectivity	<p>Proximity of international / national and local designations and key features. Natura 2000: 10km west - North Pennine Moors Special Protection Area / Special Area of Conservation (SPA / SAC); Site of Special Scientific Interest (SSSI): the extension area is bounded by the Ripon Parks SSSI and River Ure Bank Ripon Parks SSSIs including the High Batts Nature Reserve². Sites of Importance for Nature Conservation (SINC): Norton Mills (1km), Hall Garth Ponds (1.3km). Local Nature Reserve (LNR): Nosterfield 2km north-west.</p> <p>UK Priority Habitats: Deciduous woodland adjacent to the north, south and east of the site (possibly some overlap). South-west corner of site also contains some deciduous woodland (circa 5% of area). Woodland is also located at western edges approximately 60m to 70m from the site.</p> <p>Ecological Networks (EN): Living Landscape: Site entirely within River Ure Corridor; England Habitat Network (EHN): core woodland envelope of EHN overlaps north, east and south-west of site southern site</p>	✓	✓	✓	✓	-	-	+
								?

²² These SSSI areas do not form part of the proposed extension area.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>and western edge of northern site.</p> <p>Ecological surveys for the planning application (NY/2011/0429/ENV) documented within an Environmental Statement³ (ES) reported that the site is mostly arable farmland with trees, hedgerow and woodland as boundary features. The site has the potential to support foraging bat, badger, otter, nesting and farmland birds. Great crested newt is known locally from ponds within the Ripon Parks SSSI.</p> <p>Local effects. Potential Impacts include direct and indirect impacts upon the adjacent Ripon Parks SSSI, particularly in relation to changes in hydrology/ effects on the underlying aquifer. Some habitats within the SSSI are groundwater fed, as are habitats in the current quarry restoration and SINC. Operations within the quarry have the potential to impact on these habitats through draw down of water during pumping.</p> <p>The ES reported no major significant adverse impacts on nature conservation are expected as a result of development at the site. The site is unlikely to have any direct impacts to the Ripon Parks SSSI due to the proximity of extraction limits, or any other sites designated for nature conservation. There is the potential for short-term temporary impacts on a small number of bird species that use arable land.</p> <p>Invasive species are known to be present within this river corridor and the connectivity with the river and instances of flooding provide an opportunity for species to be spread, though this does not represent a significant increase from the current threat.</p> <p>In terms of geodiversity, these sites may have long term implications in terms of preventing restoration of the geomorphology of the river. The potential for the river to move in its flood plain should not be constrained by the creation of landforms which prevent that movement, e.g. proposals for lakes or bund.</p> <p>There are potential cumulative negative impacts associated with quarrying in this area, including loss of habitat and disturbance to species which may result from this quarry combined with the existing Ripon Quarry and Potgate Quarry. Cumulative benefits associated with appropriate restoration at this and other quarries, including creation of priority habitats, are likely to occur in the long term.</p>							

³ Hanson, 2011. Environmental Statement – Extension to Existing Sand and Gravel Works at Ripon Quarry, North Stainley, North Yorkshire.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>As with other wet restoration schemes restoration to deep lakes is less beneficial to biodiversity, so shallow areas and other habitats such as wet woodland / other priority habitat can offer greater benefits. The ES details restoration has also considered the proximity of RAF Leeming, Dishforth and Topcliffe which lie 12.1km from the site and the birdstrike safeguarding zone⁴.</p> <p>Plan level / regional / wider effects. Considering the source of any impacts, as well as potential pathways and receptors, it is considered that there would be no significant impact on the integrity of European sites.</p>							
2. To enhance or maintain water quality and improve efficiency of water use	<p>Proximity of water quality / quantity receptors. Nitrate Vulnerable Zone (NVZ): the site is within a NVZ for surface water and groundwater; Source Protection Zone (SPZ): Not in or adjacent to SPZ; River Basin Management Plan (RBMP): Nearest water body, extension area is bounded by 'River Ure from Thornton Steward Beck to River Skell' - ecological quality is moderate / chemical quality is 'does not require assessment; Overall status is moderate; Objective - good by 2027. No RBMP lakes present. RBMP groundwater: Site in Swale, Ure, Nidd, Ouse (SUNO) Magnesian Limestone groundwater body (quantitative quality good / chemical quality good / at risk). Objective - good by 2015.</p> <p>Catchment Abstraction Management Strategy (CAMS): surface water resources available at least 50% of time. At low flows new extraction licenses may be more restricted.</p> <p>Local effects. The ES site identifies dewatering as a key impact on groundwater and associated receptors. It is proposed to dewater the site with discharge used for mineral washing (then settling out and discharge) with the remainder being discharged to the River Ure. This is expected to create a temporary drawdown in groundwater levels during the working period. This could affect the groundwater under the Ripon Parks SSSI, though the hydraulic connection between the surface water and the groundwater is considered to be limited. Nonetheless, the ES predicts the need to continually monitor water levels and "<i>a water level management plan will be put in place</i>". The River Ure is also identified as a receptor for impacts as this will recharge the site (resulting in water loss); though through discharge of clean water to the river this is predicted to balance the situation.</p>	✓	✓	✓	✓	-	-	?

⁴ Comments received from the Ministry of Defence have been taken in to consideration when designing the restoration. Areas of open water have been minimised as far as possible to deter flocking birds and reed planting with fencing will be established as a further deterrent but provide attractive habitat for other smaller birds such as reed bunting (Please see ES for further detail)

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>Groundwater drawdown may also affect the Lightwater Stream to the south, though “according to the geological map the vicinity of the site comprises alluvium and clay till which will limit the amount of outflow from the stream”⁵. Other impacts recognised in the ES include possible pollution of groundwater from fluid loss / spillage from plant and ingress of suspended solids to the River Ure. Mitigation measures are proposed for all these impacts to bring these impacts within acceptable levels, and it is assumed the environmental permitting system would mitigate any impacts during operation. However, without mitigation, such impacts could be significant.</p> <p>As this site is not in a SPZ it may be less vulnerable than some other sites. Restoration may help to provide better protection to groundwater, depending on its design (though movement of overburdens during restoration may have water impacts of its own).</p> <p>Plan level / regional / wider effects. There is the potential pollution from the site could pass into the wider water environment via surface and groundwater pathways, however it is assumed these risks would be adequately controlled by the environmental permitting system during operation.</p>							
3. To reduce transport miles and associated emissions from transport and encourage the use of sustainable modes of	<p>Proximity of transport receptors. The site has reasonable access to the A1 giving reasonably good access to York, Leeds and Teesside. Access: confirmed to be the existing Ripon Quarry access onto A6108 (approximately 460m south of North Stainley) with the mineral to be moved to the existing plant site without passage on the highway; Light Vehicles; 16 (based on application details NY/2011/0429/ENV); Heavy Goods Vehicles (HGV): 80 to 150* (based on application details NY/2011/0429/ENV including comment *if additional processing capacity installed).</p> <p>Net change in daily two-way trip generations: Light vehicles: 0; HGVs: 0. Transport assessment rating: Green – ‘Expansion of existing site to allow continued working when present reserves are exhausted. The traffic impacts of the submission are likely to remain at present levels, thus resulting in no overall impact.’⁶</p> <p>Public Right of Way (PRoW): this site is affected by a registered PRoW which must be kept clear of any</p>		✓		✓	-	-	0

⁵ Hanson, 2011. Extension to Existing Sand and Gravel Workings at Ripon Quarry, North Stainley, North Yorkshire: Environmental Statement Section 7: Hydrogeology and Hydrology.

⁶ Jacobs (2015); Minerals and Waste Joint Traffic Assessment – Final Traffic Assessment.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
transportation	<p>obstruction until such time as an alternate route has been provided and confirmed by order.</p> <p>Rail: 11.7km east / Railhead: 49.7km south-east; Strategic Road: A1 4.2km east (direct); Canal / Freight waterway: 5.6km south.</p> <p>Local effects. The 80 to 150 HGV's per day would access the site turning on and off the road south of North Stainley (however, journeys would also be saved by processing the mineral at the adjacent plant site). HGV movement is acceptable on to the A6108, but minor works may be required to improve the existing access arrangements. A traffic assessment and / or travel plan would be required. The planning application suggests that vehicle numbers are in line with historic numbers from the existing plant, and the traffic assessment undertaken to support the Joint Plan indicates that the A6108 is currently used by around 3000 vehicles over a typical 12 hour working day, including 300 HGVs, so levels would effectively remain the same. However, in this assessment we have viewed traffic impacts as a continuation of impacts into the longer term and have noted a minor negative effect due to the continued number of HGVs (which otherwise would have been expected to cease) and the need for further improvements to access. There are few local opportunities for sustainable transport.</p> <p>Plan level / regional / wider effects. It is also noted that increase in demand at Clock tower junction in Ripon will need to be established and may need a revised routing plan, adding uncertainty to the assessment.</p>							
4. To protect and improve air quality	<p>Proximity of air quality receptors. The site is not within a hazardous substances consent zone or within 2km of Air Quality Management Areas (AQMA). Norton Mills Farm 260m north. Middle Parks Farm 120m south. Badger Bank (settlement) 450m north. Norton Conyers 750m to the east.</p> <p>Local effects. The ES states "<i>The likelihood of problems caused by dust will be largely influenced by the effectiveness of on-site environmental control. Given the intended dust control measures and method of working, the site can continue to be operated with minimal impact on nearby residential properties and boundary locations</i>".⁷. In addition "<i>A full PM₁₀ assessment in line with the latest recommendations has been undertaken and this clearly shows that the Air Quality Objectives are not expected to be exceeded</i>".</p>		✓	✓	✓	-	-	0

⁷ Citation needed

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	Therefore, the site is considered to have a minor negative effect. Plan level / regional / wider effects. None noted.							
5. To use soil and land efficiently and safeguard or enhance their quality	Proximity of soil and land receptors. Agricultural Land Classification (ALC): 95% of site in Grade 3; thin strip of Grade 2 along eastern boundary. Greenfield site – no known risk factors for contaminated land. The site does not lie within or adjacent to a development high risk area (coal mining). Local effects. Up to 30.22ha of possible best and most versatile agricultural land (Grade 2 and Grade 3) land will be lost ⁸ . Plan level / regional / wider effects. If best and most versatile agricultural land is lost at the site, it would add cumulatively to the loss of agricultural land to development land in England. However, the loss is considered to be a small in relation (0.09%) to the overall agricultural land lost in England per annum to development ⁹ but could have a small scale effect on national food production capacity. The overall level of contribution to the objective is considered to be minor negative.	✓		✓		-	-	- ?

⁸ The best and most versatile agricultural land is ALC Grade 1 to 3a. Based on available mapping the site is located within ALC Grade 3 land, without further investigation it is not known whether it is Grade 3a or 3b. For the purposes of this SA the precautionary principle has been adopted and it is assumed that Grade 3 land is Grade 3a and the best and most versatile agricultural land.

⁹ 30.22ha (assuming all land is best and most versatile) annualised across the 15 year life of the site would be an annual 2.01ha loss. There was 2365ha of agricultural land was lost to development in 2014/15 across England. A 2.01ha loss would represent a 0.09% contribution to this category of soil loss across England for each year of the site.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
6. Reduce the causes of climate change	<p>Proximity of factors relevant to exacerbating climate change. Deciduous woodland adjacent to north, south and east of site (possibly some overlap). Site visit revealed trees and a hedgerow on site.</p> <p>Local effects. As climate change is a global issue, effects are reported in wider effects below.</p> <p>Plan level / regional / wider effects. A small amount of carbon storage habitat may be lost, though the effect of this on this objective is negligible. The site is expected to maintain current traffic volumes at the existing Ripon Quarry (Light Vehicles – 16, HGV – 80 to 150). Access to the road network is good, however minerals would still need to travel to likely markets in York, Leeds and Teesside generating vehicle emissions that contribute to climate change. A significant amount of energy will be required for machinery to extract the minerals from the site, with associated emissions and use of natural resources.</p> <p>Overall, effects on this SA objective are considered moderate negative in the short and medium term, falling to minor negative if the northern site continues to operate in the longer term. An assessment showing how the design for the proposal has taken into account the need for resilience to climate change factors must be undertaken¹⁰.</p>	✓		✓		m-	m-	- ?
7. To respond and adapt to the effects of climate change	<p>Proximity of factors relevant to the adaptive capacity of a site. Flooding: the site is in Flood Zones 2 and 3. It is also identified as being at historic flood risk. About 5% of the site is also subject to surface water flooding, which includes small areas at 1:30 (3.33%) high risk of flooding. However, as extraction is likely to change the topography of the site where flooding occurs across this site is likely to change as extraction progresses. Within the Ouse Catchment Flood Management Plan (CFMP): Upper Ure and Swinney Beck / Policy 6.</p> <p>Catchment Abstraction Management Strategy (CAMS): surface water resources available at least 50% of time. At low flows new extraction licenses may be more restricted.</p>	✓	✓	✓	✓	-	-	+ ?

¹⁰ Proposals for new mineral extraction at a rate in excess of 75,000 tonnes per annum should be accompanied by an assessment showing how the design for the proposal has taken into account the need for resilience to climate change factors. These thresholds are based on the 75,000 tonnes per annum threshold for strategically significant waste facilities used in the Yorkshire and Humber Waste Position Statement, which has been applied also to minerals output for the purposes of Development Management, Policy D11.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>Ecological Networks: Living Landscape: Site entirely within River Ure Corridor NY10; England Habitat Network (EHN): Core woodland envelope of EHN overlaps north, east and south-west of site southern site and western edge of northern site.</p> <p>95% of site in ALC Grade 3; thin strip of Grade 2 along eastern boundary.</p> <p>Local effects. The site is at risk from the 1:20 (5%) event and Flood Zones 2 and 3, as such climate change is likely to increase the depth of flooding over the site compared to present day for these event scenarios. Although site is water compatible, the high risk of flooding to this site suggests the need for flood emergency planning. In the longer term, there is the potential for these sites to offer flood storage to the wider catchment. Ecological networks are unlikely to be affected due to these sites not disrupting significant parts of the corridors. However, restoration in the long term would strengthen networks.</p> <p>Plan level / regional / wider effects. Agricultural land is increasingly recognised as being vulnerable to climate change, loss of this land will have a combined effect with wider losses elsewhere due to climate change – the effect is considered a minor negative.</p>							
8. To minimise the use of resources and encourage their re-use and safeguarding	<p>Proximity of factors relevant to the resource usage of a site. No spatial factors identified</p> <p>Local effects. This site will extract virgin sand and gravel which will be unavailable for future use (unless recycled). This is considered to have a high negative effect on the SA objective.</p> <p>Plan level / regional / wider effects. Considered to be the same as local effects.</p>	✓			✓	--	--	--
9. To minimise waste generation and prioritise management of waste as high up the	<p>Proximity of factors relevant to managing waste higher up the waste hierarchy. No spatial factors identified</p> <p>Local effects on the waste hierarchy. None noted.</p> <p>Plan level / regional / wider effects. The site may have an indirect negative impact on the prioritising the management of waste up the waste hierarchy as a result of providing virgin sand and gravel and reducing</p>		✓		✓	-	-	-

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
waste hierarchy as practicable	the need to recycle sand and gravel from other locations.							
10. To conserve or enhance the historic environment and its setting, cultural heritage and character	<p>Proximity of historic environment receptors. Conservation Areas: none within 1km; Registered Parks and Gardens: circa 70m from Norton Conyers Registered Parks and Garden (Grade II) (Designation ID 10001068). Registered battlefields: None within 5km; World Heritage Sites: None within 5km.</p> <p>Scheduled Monuments within 2km: 1.6km to south of site is 'Nunwick Henge', 1.4km north of site is 'East Tanfield Deserted Medieval Settlement' and 1.1km west of site is 'Castle Dikes Defended Roman Villa'.</p> <p>Listed buildings: 1km from the site Grade II* Middle Parks Farm.</p> <p>Named designated landscape (from pre-validated dataset derived from Historic Landscape Characterisation (HLC)); HNY22399 (no name listed) ornamental parkland 70m east of the site.</p> <p>HLC Broad Type - enclosed land / HLC Type – modern improved fields. The site lies within an area of high archaeological significance and sensitivity, which contains a number of prehistoric monuments and deposits that have been the subject of recent investigation and publication. The Thornborough Henges landscape is considered to be internationally significant. In addition, undesignated archaeology includes evidence of finds and features of early prehistoric date and Bronze Age round barrow burial sites.</p> <p>In terms of archaeology, there were no archaeological features or deposits identified in the site, although there are deposits of Iron Age / Romano-British date within the top soil storage area which it is assumed will be excluded from any direct impacts.</p> <p>Local effects. The HLC type of this area is modern improved fields. The site is a smaller part of a much larger area of similar character type, of which the legibility is fragmentary. Proposed extraction is unlikely to have a major impact upon the HLC of the immediately surrounding area. However, it is acknowledged that within the site, the HLC will become invisible as development will replace an earlier field system. As 20% of</p>	✓		✓		-	-	-

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>the overall HLC project area has been identified as modern improved fields, this effect is not considered to be significant.</p> <p>The existing archaeological deposits include remains of lesser significance. It is assumed that the archaeological impact will occur throughout the duration of extraction, with investigation works required by the Joint Plan Policy D08 (Historic Environment) – <i>‘mitigation of damage will be ensured through preservation of the remains in situ as a preferred solution. When in situ preservation is not justified, adequate provision should be made for excavation and recording before or during development.’</i>, expected to mitigate the impact to buried archaeology and this is considered a minor negative effect.</p> <p>A visual assessment was carried out / examined the proposed development area from Norton Conyers Registered Park and Garden and concluded “<i>The key consideration in relation to the cultural landscape has been potential effects of the proposed scheme upon the setting of the Norton Conyers estate. Overall, it is considered that the change to the setting of Norton Conyers is negligible during extraction and that the proposed mitigation measures would ensure enhancement of its setting upon restoration using a combination of off and on-site native tree planting</i>” (refer to ES for further details).</p> <p><u>Plan level / regional / wider effects.</u> None noted.</p>							

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
11. To protect and enhance the quality and character of landscapes and townscapes	<p>Proximity of landscape / townscape receptors and summary of character. National Parks: None within 10km; Areas of Outstanding Natural Beauty (AONBs): Nidderdale 3km west; Heritage Coast: None within 10km; Inheritance Tax Exemption Land (ITE) land: Norton Conyers ITE land is 66m east; National Character Area (NCA): Southern Magnesian Limestone. Green Belt: not within the Green Belt.</p> <p>North Yorkshire Landscape Character Assessment (NYLCA): landscape character type 24: river floodplain (farmed, lowland and valley landscapes). High visual sensitivity (as a result of the predominantly open character and flat landform which facilitates long distance open views across the landscape). High ecological sensitivity as result of the patchwork of habitats. High landscape and cultural sensitivity as a result of the presence of numerous historic settlement sites and designated landscapes, coupled with a dynamic landscape pattern of narrow river corridors. District LCA: 'River Ure Corridor' in Harrogate LCA.</p> <p>Intrusion: Undisturbed. The area is fairly tranquil. Urban intrusion: The wider context is rural but there is local intrusion from the existing active quarry. The A6108 corridor, North Stainley and the Lightwater Valley theme park are 1km to 2km to the west. Light pollution: the site ranges from <0.25 to 0.5 NanoWatts/ cm²/ sr¹¹.</p> <p>Local effects. The site is an extension to an existing quarry which has been in operation for 50 years. Much of the existing quarry has now been restored and includes areas of wetlands, grassland, woodland and agriculture. During extraction there would be a temporary negative impact upon the landscape character. However, it is considered that the proposals are in accordance with Policy C2¹², as impacts would lessen to become slightly beneficial upon final restoration due to the introduction of a network of open water, wetland and woodland habitats, diversifying the existing agricultural landscape character and nature conservation value of the site. Visually the site is very well screened from view by the existing mature trees which enclose the majority of the site. Local settlements are not likely to be affected and North Stainley lies just over 1.3km to the west of the site. There is intervening woodland and riverside screening along the River Ure. The</p>	✓		✓		-	-	0

¹¹ Light pollution and dark skies are measured on a scale <0.25 (darkest) to >32 (brightest) NanoWatts/ cm²/ sr. CPRE, 2015; England's Light Pollution and Dark Skies – Interactive Map. Available at <http://www.cpre.org.uk/>. Accessed September 2016.

¹² The preservation of the local landscape character is also a key consideration, highlighted by the Harrogate District Local Plan Policy: Policy C2: Landscape Character “Development should protect existing landscape character. In locations where restoration of the landscape is necessary or desirable, opportunities should be taken for the design and landscaping of development proposals to repair or reintroduce landscape features, to the extent that this is justified by the effects of the proposal.”

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>current quarry does not impact on the settlement. Overall, due to the limited number of visual receptors within the local area, the visual impact during the extraction phase is considered to be minor negative. The negative score takes account of the proposed mitigation measures that would be implemented prior to and at the establishment phase. Post construction, the residual visual impact of the quarrying operation is considered following restoration, including any mitigation proposals. The overall significance of visual impact following restoration is considered to be negligible.</p> <p>The floodplain landscape type within which the site is located is being heavily exploited at a number of locations in North Yorkshire, resulting in large scale disturbance and the creation after restoration of areas of new landscape character which are likely to be unstable in the long term because they do not reflect geomorphological / fluvial processes as the previous landscapes largely did (although modified and protected by man in more recent times). However within the timescale of this assessment the wet restoration scheme proposed can be accommodated, and can be acceptable on visual and landscape character grounds. There is however an issue with the impact on the registered parkland of Norton Conyers which will have direct views of the site. It will be important for mitigation to be aligned with Norton Conyers.</p> <p>There could also be direct impacts on vistas from the Ripon Rowell and on the river corridor setting. There may also be cumulative effects from 'a possible future quarried landscape' / from other sites.</p> <p>It would be desirable to allow the river in this area to meander (a big lake would prevent the meander). Historic meanders are visible.</p> <p>Levels of visual intrusion will not increase as the site is low lying and largely screened by trees from views from the wider landscape.</p> <p>Plan level / regional / wider effects. None noted.</p>							

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
12. Achieve sustainable economic growth and create and support jobs	<p>Proximity of factors relevant to sustainable economic growth. The site is reasonably well linked to the access to the A1 giving reasonably good access to York, Leeds, Harrogate and Teesside.</p> <p>Local effects on sustainable economic growth. The estimated mineral reserve at the site is 3.5 million tonnes of sand and gravel, with this potentially being made available to the market over the lifetime of the site. This would make a significant contribution to the building sector by helping to boost supply of a key building material (as well as supporting freight jobs). However, the extraction of minerals is not considered a sustainable industry as the economic boost and jobs provided at the site is limited to the lifetime of mineral extraction. Overall the allocation is considered to have a minor positive effect in the short term and medium term (the 15 years the site would be operational), with a neutral effect in the long term following closure of the site.</p> <p>Plan level / regional / wider effects. None noted.</p>	✓		✓	✓	+	+	0
13. Maintain and enhance the viability and vitality of local communities	<p>Proximity of factors relevant to community vitality / viability. Index of Multiple Deprivation (IMD) Area - Kirkby Malzeard / Wathvale – not in most deprived 20%.</p> <p>Norton Mills Farm is 260m north. Middle Parks Farm is 120m south. Badger Bank (settlement) is 450m north. Norton Conyers is 750m east. North Stainley lies 1.3km west, while Wath is 1.4km east and Nunwick is 1.9km south.</p> <p>Local effects. The site would support a small number of jobs leading to minor positive impacts in the short and medium term and negligible to minor positive impacts in the long term. Whilst the site would provide a source of sand and gravel which could aid future development, it is considered that the immediate settlements are unlikely to directly benefit in any significant way. In the long term it is considered that the restoration scheme has the potential to boost tourism in the area through the creation of new habitats (which could be made accessible).</p> <p>Plan level / regional / wider effects. Not applicable to this site.</p>		✓	✓	✓	+	+	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
14. To provide opportunities to enable recreation, leisure and learning	<p>Proximity to recreation, leisure and learning receptors. Rights of way: bridleway 15.103/8/1 within 20m west of the northwest corner. The long distance right of way called the 'Ripon Rowel' follows this part of the bridleway also at 20m.</p> <p>Local effects. The site is close to the Ripon Rowel. The current planning application, by way of mitigation, proposes to separate the access track from the bridleway / Ripon Rowell walk where they intersect. While a different application may ultimately come forward for this site we have scored these impacts without mitigation assuming the development would be phased in similar way to the current planning application.</p> <p>Plan level / regional / wider effects. None noted.</p>		✓	✓		-	-	0
15. To protect and improve the wellbeing, health and safety of local communities	<p>Proximity to population / community receptors / factors relevant to health and wellbeing. Norton Mills is 260m north. North Parks is 120m south. Badger Bank (settlement) 450m north. Norton Conyers is 750m east. Nearest farm building is 850m south. No schools, hospitals, health centres or clinics within 1km. High pressure gas pipeline Feeder 7 crosses the site.</p> <p>Local effects. The high pressure gas pipeline would require suitable arrangement for the retention or re-routing for safety purposes. A continuation of traffic would occur on the A6108, though the current low volumes on this road mean that air pollution and accident effects are of low significance.</p> <p>Plan level / regional / wider effects. None noted.</p>		✓	✓	✓	-	-	0
16. To minimise flood risk and reduce the impact of flooding	<p>Proximity to flood zones. Flooding: the site is in Flood Zones 2 and 3. It is also identified as being at historic flood risk. About 5% of the site is also subject to surface water flooding, which includes small areas at 1:30 (3.33%) high risk of flooding. However, as extraction is likely to change the topography of the site where flooding occurs across this site is likely to change as extraction progresses.</p> <p>The site lies across two 1km squares in the Environment Agency's Areas Susceptible to Groundwater Flooding maps, with the southern part of the site is in a km square that is >50 to <75% at risk of superficial deposits flooding.</p> <p>According to the planning application for this site <i>"in order to facilitate mineral extraction, it is proposed to continue the current practice of lowering the natural groundwater level by dewatering. It is envisaged that the</i></p>	✓	✓	✓	✓	-	-	+ ?

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p><i>water table will be lowered to around 8.6m below ground level”.</i></p> <p>The 1:20 (5%) event extent mapping for this SFRA shows that 100% of this site is at flood risk.</p> <p>Within the Ouse Catchment Flood Management Plan (CFMP): Upper Ure and Swinney Beck / Policy 6.</p> <p>Local effects. A Strategic Flood Risk Assessment (SFRA) Sequential Test undertaken for the site concluded that this site would ‘Pass’. A site specific flood risk assessment has already been submitted for this site which concluded that the site would require an evacuation plan, that work stop during high rainfall events, and that works will have little potential to impact on the flows in the River Ure¹³. Although site is water compatible, the high risk of flooding to this site suggests the need for flood risk emergency planning. In the longer term, there is the potential for the site to offer flood storage to the wider catchment, although there is some uncertainty over the capacity of storage that would be provided as the quarry void may simply fill with groundwater following dewatering.</p> <p>Plan level / regional / wider effects. None noted.</p>							
17. To address the needs of a changing population in a sustainable and inclusive manner	<p>Proximity to factors relevant to the needs of a changing population. The site does not conflict with any known allocations in other plans.</p> <p>Local effects. The site would make a significant contribution to self-sufficiency in the supply of sand and gravel.</p> <p>Plan level / regional / wider effects. The site may also support markets outside of the plan area.</p>		✓	✓		+	+	0

¹³ Hafren Water, 2011. Flood Risk Assessment for Ripon Quarry Extension into Pennycroft Area [URL: <https://onlineplanningregister.northyorks.gov.uk/register/PlanAppDisp.aspx?recno=8225>]

Cumulative / Synergistic effects¹⁴	
Planning context	North Stainley is 1.3km west, Wath is 1.4km east, Nunwick is 1.9km south. North Stainley and Wath are Group C settlements (only very limited growth). Although the local development framework has no allocations development plan documents in place, the earlier 2001 Local Plan shows no allocations within 200m this site.
Other Minerals and Waste Joint Plan Sites	MWJP sites within 5km: WJP24 Potgate Quarry (2.3km west), MJP06 Langwith Hall Farm (4.5km north), MJP07 (5km north), MJP10 Potgate Quarry (2.1km west).
Historic minerals and waste sites	Active Magnesian limestone site at Potgate 2.4km west. Dormant sand and gravel at Haw Wood 3.7km west. Active sand and gravel site at Nosterfield 2.5km north. Numerous historic applications are clustered around Nosterfield 3.8km north-west, West Tanfield 1.4km north-west and North Stainley 0.2km north-west. Group of historic application to the south-west of North Stainley 1.7km west. Fewer applications to the south (2 around Sutton Grange 1.9km south). Landfill: Nearest is 'land to the north of Moor Lane' 1.9km north-west.
Landscape Impacts	There may be cumulative landscape effects from 'a possible future quarried landscape' / from other sites
Limitations / data gaps	
No significant data gaps. More detailed assessment may be required to fully evaluate a number of effects however. This should be addressed at any subsequent planning application stage.	
Mitigation requirements identified through Site Assessment process	
<ul style="list-style-type: none"> • Design to mitigate impact on ecological issues, in particular with regard to avoiding impacts on the Ripon Parks and River Ure Bank Ripon Parks SSSIs and the River Ure to demonstrate that minerals extraction at this site will not destroy or damage the interest features for which the High Batts, Ripon Parks and River Ure Bank Ripon Parks SSSIs are designated and in respect of protected species including measures to address and control invasive species. • Suitable arrangements for retention or diversion of gas pipeline (as appropriate). • Design to minimise the irreversible loss of best and most versatile agricultural land and to protect high quality soil resources. • Design of development and landscaping of site to mitigate potential impacts on: heritage assets (Listed Buildings including at Norton 	

¹⁴ Cumulative effects have been factored into the scoring of each SA objective in the assessment framework.

Conyers, Norton Conyers Registered Park and Garden), local landscape features and their respective settings.

- Design to include suitable flood risk assessment; for an FRA to be satisfactory, it will need to include necessary mitigation, such as compensatory storage, attenuation and SuDS as appropriate and mitigation of any hydrogeomorphic impacts on the river, its tributaries and on groundwater supplies.
- Design to include suitable arrangements for public rights of way and the Ripon Rowel Walk (diversion or retention, and associated mitigation, as appropriate).
- Design to include suitable arrangements for access and local roads, including an appropriate traffic management plan.
- Appropriate arrangements for control of and mitigation of the effects of noise, dust
- Appropriate restoration scheme using opportunities for habitat creation, but which is also appropriate to location within a birdstrike safeguarding zone.

DRAFT

MJP10 Potgate Quarry, North Stainley – ALLOCATED SITE

Site Name	MJP10 Potgate Quarry, North Stainley, Ripon, HG4 3JN (XY 427689 476336)
Current Use	Agriculture
Nature of Planning Proposal	Extraction of magnesium limestone as proposed extension to existing quarry
Size	36.5ha of which working area would be 19.4ha
Proposed life of site	16 years
Notes	Arable agriculture with some biodiversity habitats (woodland, pasture, conservation grassland, hedgerows, pond, exposed rock faces and screes). An area of land to the west of the site, Musterfield, was granted planning permission (NY/2012/0319/ENV) on 30 January 2015.

SA FINDINGS SUMMARISE SIGNIFICANT EFFECTS ONLY. A WIDER RANGE OF CONSTRAINTS AND OPPORTUNITIES WERE INITIALLY ANALYSED AND DISTILLED DOWN TO ONLY THOSE WITH THE POTENTIAL TO BE SIGNIFICANT (SEE ALSO SITE ASSESSMENT METHODOLOGY SUMMARY REPORT FOR A FULL LIST OF CONSTRAINTS AND OPPORTUNITIES).

Sustainability Objective	Key Observations on Significance	Score						
		P	T	D	I	S	M	L
1. To protect and enhance biodiversity and geo-diversity and improve habitat connectivity	<p>Proximity of international / national and local designations and key features. Natura 2000: North Pennine Moors SPA/SAC is 8km west. SSSI: 1.55 km east of site is Ripon Parks SSSI. 2.86 km to the south is Cow Myers SSSI. 3.1 km west is Hack Fall Wood SSSI. Five Ponds Wood ratified SINC is immediately adjacent to the south-west corner of the site. No further SINC are within 2km.</p> <p>Priority Habitat: Deciduous woodland patches touch the edges of southern and eastern boundaries of the site (very small overlap may be mapping anomaly). More deciduous woodland to north east about 45m away. Core EHN woodland buffer overlaps fringes of south of site.</p> <p>Site visit: Pasture / grassland, hedgerows and standalone trees on site.</p> <p>Local effects. The site is currently used for arable agriculture and therefore the current biodiversity interest of this site is relatively low. Any hydrological links between the proposed site and Ripon Parks SSSI need to be investigated as changes to surface or groundwater resulting from extraction have the potential to impact</p>	✓	✓	✓	✓	-	0	0
								?

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>upon the SSSI. Impacts from dust deposition also need considering.</p> <p>Five Ponds Wood SINC could be compromised in its functional connectivity with other habitats and hydrology by being bordered by high cliffs (with only a thin corridor remaining to connect this site to the wider landscape when other extant quarries are considered). There are, therefore, concerns as to whether the wood will retain ecological connectivity or become isolated. A minor adverse effect on the SINC is predicted, hence the updated score which reflect any pre mitigation. This would require attention at the project level should the site be selected.</p> <p>Habitats of importance on site include old hedgerows and mature trees. Protected species that may be affected by this development include foraging bats, badger, great crested newt (which is known to be present on the existing Potgate quarry), nesting birds and brown hare. There is a veteran oak on site. Losses of habitats and species could be cumulative with other sites.</p> <p>This site provides a major opportunity to create calcareous grassland priority habitat and is only currently found in small isolated fragments within the area. There are already commitments within the existing quarry restoration to create calcareous grassland and this could be further expanded – providing a more viable management unit to a future grazier. This would provide an extremely valuable resource for a range of associated species. Any benefit could be maximised by aligning with existing commitments and restoration at other nearby sites and ensuring the restoration is managed.</p> <p>Plan level / regional / wider effects. Due to the distance and type of development, it is unlikely that there would be any significant effects on Natura 2000 sites. The nationally designated Ripon Parks SSSI, Cow Myers SSSI and Hack Fall Wood SSSI are possible receptors to this site, dust would be unlikely to have a significant effect due to distance, while hydrological effects could only occur if there were a hydrological link. As this site is likely to be extracted above the water table (based on extraction at the current site¹⁵)</p>							

¹⁵ A screening letter for a recent proposal at Gebdykes Quarry detailed that working stone at 115m Above Ordnance Datum (AOD) would not affect the groundwater level and that the site would remain above the water table. Site MJP10 is adjacent and upslope from this site and it is therefore not expected to affect groundwater level.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	potential impacts are only likely to occur as a result of fuel spills migrating through the bedrock to the aquifer, which can be mitigated for through good site management. Specific reference to potential hydrological impacts on Ripon Parks SSSI can be made within development management measures to be considered in any future application where appropriate. However, should extraction require going below the water table, a hydrological survey will be required.							
2. To enhance or maintain water quality and improve efficiency of water use	<p>Proximity of water quality / quantity receptors. The site is in a Nitrate Vulnerable Zone for surface and groundwater. Source Protection Zone: none within the site, the closest is approximately 60m south-west. River Basin Management Plan (RBMP): the nearest RBMP water body, at 560m east is the River Ure from Thornton Steward Beck to River Skell – ecological quality is moderate / chemical quality is 'does not require assessment and is at the other side of North Stainley so no surface connectivity. Overall status is moderate. Objective – good by 2027. No RBMP lakes present. Lightwater Stream is 1.1 km due south. Groundwater: SUNO Magnesian Limestone – quantitative quality good / chemical quality good / at risk-objective: good by 2027.</p> <p>Catchment Abstraction Management Strategy (CAMS): surface water resources available at least 50% of time. At low flows new extraction licenses may be more restricted.</p> <p>Local effects. Because this site is in a NVZ, local water bodies may be vulnerable during the restoration phase of the project if soils or fertilisers are managed. As with all mineral site there is a risk of water pollution from run off of overburden and fuel from the site, which could affect water quality without mitigation. The site is not a Source Protection Zone and the site appears distant from any sensitive surface water bodies or sites. The neighbouring quarry application NY/2012/0319/ENV states that there are no obvious points of groundwater ingress into existing quarry excavations and that application would not expect to have significant impacts on groundwater flow / no requirement for dewatering, while pollution of groundwater from spills of fuel and lubricants can be managed via appropriate storage and emergency procedures. Detail on how water would be managed at this site has been provided by the applicant, who has stated that the base of the quarry would be kept at 2m above the water table and that pumping would not occur, with rainfall filtering through the limestone. As there is no direct discharge to surface watercourses, groundwater flows and recharge would be unaffected. In addition, the site is situated largely</p>		✓	✓		0	0	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>on the impervious Middle Permian Marl, which would significantly reduce risks to water sensitive receptors to the east such as the River Ure or Ripon Parks SSSI¹⁶.</p> <p>Although surface water would eventually drain through fissures to the River and Lightwater Stream, both are some distance away which is likely to allow settlement of pollutants, which in any case would be managed by routine management measures.</p> <p>Therefore, simply extending routine management measures would be likely to reduce any risks to groundwater and surface water a negligible level. Most impacts would be expected to be managed via an environmental permit.</p> <p>Plan Level / regional / wider effects. None noted.</p>							
3. To reduce transport miles and associated emissions from transport and encourage the use of sustainable modes of transportation	<p>Proximity of transport receptors. The site is reasonably accessible to the A1 giving reasonably good access to York, Leeds and Teesside. Access: to be into the western field of MJP10 from the Potgate Quarry through the Musterfield extension, material would then leave the site via the existing access along Water Lane onto the A6108 approximately 100m south of North Stainley. There would be no direct access to MJP10 from the public highway.</p> <p>HGV Vehicles: 90 to 160 two-way movements. Light Vehicles: 32 two-way movements (traffic levels are expected to be similar to existing levels at the Potgate quarry)¹⁷.</p> <p>PRoW: material would leave the site via an access along Water Lane which is a bridleway.</p> <p>Rail: 14km east / Railhead: 51km south; Strategic Road: A1 is 6.1km east (direct), 13km along roads; Canal</p>		✓		✓	-	-	0

¹⁶ Saul, 2016. 'Proposed Extension to Potgate Quarry: Potential Effects on the Water Environment of the Area' in Lightwater Quarries, 2016. Response to NYCC Joint Minerals and Waste Plan SA Assessment.

¹⁷ It is estimated that vehicle movements will be lower than those assigned to this site due to the current site's operations strategy, which involves dividing sales between this site and Gebdykes Quarry more evenly. The applicant has stated that this is likely to reduce vehicle numbers by about 1/3 at this site.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>/ Freight waterway: Ouse 6.75 km south.</p> <p>Local effects. The site traffic will potentially meet traffic from North Stainley as well as other quarry traffic and possibly traffic associated with Lightwater Valley so there may be cumulative impacts on local roads from traffic. However, these are likely to be an extension of existing impacts to some extent as the site is an extension to an existing quarry (so impacts endure for longer). Access would be along Water Lane which is a bridleway leading to potential disturbance of bridleway users and methods of sustainable transport..</p> <p>According to a Highways Assessment, HGV movement is acceptable onto the A6108, though minor works may be required to improve the existing access arrangements. A transport plan and travel assessment will be required to identify if there any sustainable transport opportunities. The Highways Assessment noted that while this is an existing site, the vehicles generated may have an additional impact as the area is already heavily used by HGVs. We have considered this to be an extension of existing impacts (which would otherwise have subsided).</p> <p>Plan level / regional / wider effects. It should be noted that an important indirect effect of not having this quarry is noted, which is that customers in the centre and east of the county would be poorly served in terms of Magnesian Limestone. This would have an indirect effect of driving demand for longer distance journeys, therefore this site is considered to have a minor positive impact on reducing long distance travel in the region.</p> <p>Overall the site is expected to have a minor negative effect in the short and medium term and a neutral effect in the long term following site closure.</p>							
4. To protect and improve air quality	<p>Proximity of air quality receptors. No hazardous substance consent sites or AQMAs within 2km. North Stainley is 450m north-east. An outlet shopping centre is 500m south-east. Lightwater Valley 500m south-east. Musterfield (2 dwellings) is 300m south-west. Friars Hurst at 150m north. Isolated properties / farms also occasionally around site. Priority Habitat: Deciduous woodland patches touch the edges of southern and eastern boundaries of the site.</p> <p>Local effects. This site is relatively close to Musterfield and Friar's Hurst, which could be within range of</p>		✓	✓	✓	-	-	-
						?	?	?

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>quarry dust and traffic dust impacts (depending on routes taken). Other receptors are more distant, though may still be within range of occasional low level dust impacts from smaller particles so dust assessment would be needed. The assessment notes that past complaints due to dust have not been noted and that the number of receptors is relatively small. Similarly dust may impact on habitats next to the site, though as woodland sites these are thought to be of low sensitivity and the effect is likely to be insignificant. The neighbouring site (planning application NY/2012/0319/ENV) utilises a dust action plan to minimise dust nuisance. Without mitigation impacts are considered to be potentially up to a minor effect, though mitigation could reduce these impacts to a negligible level.</p> <p>Dust on the access roads least will not be significant if wheel washing takes place as the access road is tarmac.</p> <p>Plan level / regional / wider effects. The site is relatively close to the A1 providing relatively good access for vehicles. The site is expected to generate 90 to 160 two-way HGV movements and 32 light vehicle two-way movements daily. The vehicles required for the site are estimated to be lower than current levels¹⁸, however the site would extend the use of vehicles at the site and contribute to vehicle emissions. This should be balanced by the consideration that limestone would likely come from further afield without this site (ultimately producing more pollution). We have rated this effect as a negligible to minor negative effect at maximum as it will combine with the particulate pollution of other vehicles, with uncertainty over the indirect effects of not having this quarry.</p> <p>Overall we consider that effects would be negligible to minor negative with some uncertainty resulting from the indirect effects of not having this quarry. Mitigation measures such as wheel washing and a dust action plan would help to reduce any adverse impacts.</p>							

¹⁸ It is estimated that vehicle movements will be lower than those assigned to this site due to the current site's operations strategy, which involves dividing sales between this site and Gebdykes Quarry more evenly. The applicant has stated that this is likely to reduce vehicle numbers by about 1/3 at this site.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
5. To use soil and land efficiently and safeguard or enhance their quality	<p>Proximity of soil and land receptors. Agricultural land – ALC Grade 3 (good to moderate quality) land. This is a green field site - no known contaminated land risk factors. Coal mining subsidence: Site does not lie within or adjacent to a development high risk area.</p> <p>Local effects. Extraction operations would result in the temporary loss of up to 36.5ha of possible best and most versatile agricultural land¹⁹. Agricultural land is farmed adjacent to the site and there is a risk of contamination to soil and crops as well as potential risk to livestock. Impacts are therefore considered to be moderate negative in the short and medium term, with uncertainty, as agricultural land is temporarily lost. The applicant has stated that a 'strip till drilling' technique of farming will be implemented post restoration, which is likely to improve soil quality in comparison to other restored sites. In the longer term effects will potentially improve as the site is restored, though is uncertain whether this will be an improvement on the baseline.</p> <p>Plan level / regional / wider effects. The loss of best and most versatile agricultural land cumulatively could have an effect on national food production capacity. The contribution of this site to the cumulative loss is considered to be a small in relation to the overall agricultural land lost in England per annum to development²⁰ but could have a small scale effect on national food production capacity.</p>		✓	✓		m - ?	m - ?	?

¹⁹ The best and most versatile agricultural land is ALC Grade 1 to 3a. Based on available mapping the site is located within ALC Grade 3 land, without further investigation it is not known whether it is Grade 3a or 3b. For the purposes of this SA the precautionary principle approach has been adopted and it is assumed that Grade 3 land is Grade 3a and the best and most versatile agricultural land.

²⁰ 36.5ha (assuming all land is best and most versatile) annualised across the 16 year life of the site would be an annual 2.3ha loss. There was 2365ha of agricultural land was lost to development in 2014/15 across England. A 2.3ha loss would represent a 0.09% contribution to this category of soil loss across England for each year of the site.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
6. Reduce the causes of climate change	<p>Proximity of factors relevant to exacerbating climate change. Priority Habitat: Deciduous woodland patches touch the edges of southern and eastern boundaries of the site (very small overlap may be mapping anomaly). Hedgerows and standalone trees on site.</p> <p>Local effects. Although small areas of carbon storage habitat are on site, the loss of this would be negligible in terms of this objective.</p> <p>Plan level / regional / wider effects. An annual output of up to 380,000 tonnes per year²¹ would significantly and permanently add to greenhouse gas emissions due to the energy required to extract and transport these primary materials (though the site is relatively close to markets and the operator utilises a 'multi drop, zero waste' transit system which ensures net lorry miles are reduced). A minor impact would come from traffic from the site which would need to ship limestone off site, an extension of impacts into the future rather than new traffic. In the longer term / post construction, the situation would become more positive as habitats / biomass planned as part of the restoration scheme for this site start to establish. Arguably not producing minerals at this site would result in a similar amount of minerals being produced somewhere else, potentially further away from the markets served by Potgate Quarry, which would in effect be worse for climate change.</p>	✓		✓		m -	m -	?
7. To respond and adapt to the effects of climate change	<p>Proximity of factors relevant to the adaptive capacity²² of a site. This site is in Flood Zone 1. About 5% of this site is in areas subject to surface water flooding (low risk (1:1000 (0.1%)) to high risk (1:30 (3.33%)). Climate change would not affect the site in the latter part of the plan period. Catchment Flood Management Plan (CFMP): Ouse CFMP / River Washburn unit / Policy 6. Core EHN woodland buffer overlaps fringes of south of site. In Wharfe and Lower Ouse CAMS: surface water resources available at least 50% of time. At</p>	✓	✓	✓	✓	m -	m -	- ?

²¹ Proposals for new mineral extraction at a rate in excess of 75,000 tonnes per annum should be accompanied by an assessment showing how the design for the proposal has taken into account the need for resilience to climate change factors. These thresholds are based on the 75,000 tonnes per annum threshold for strategically significant waste facilities used in the Yorkshire and Humber Waste Position Statement, which has been applied also to minerals output for the purposes of Development Management, Policy D11.

²² Adaptive capacity is defined as the ability of a system to adjust to climate change to moderate potential; damage or take advantage of opportunities (adapted from CARE International, 2015. Adaptive Capacity [URL: http://www.careclimatechange.org/tk/integration/en/key_concepts/adaptive_capacity.html]

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>low flows new extraction licenses may be more restricted.</p> <p>Local effects. The site is subject to a negligible degree of surface water (not fluvial) flooding and would be 'less vulnerable' in terms of the categories of development promoted by the planning system. There appears to be some risk that connectivity between priority woodland patches could be lost and impair the movement of species vulnerable to climate changes. In addition, it is unlikely the short and medium term development of the site will provide an opportunity to deliver climate change adaptations, mainly due to potential loss of best and most versatile agricultural land.</p> <p>Potential planting to connect woodland sites during operation, and further creation of habitats during restoration is likely to result in steadily lessening moderate negative effects in the short to medium term and minor negative effects with a degree of uncertainty on this objective in the long term.</p> <p>Plan level / regional / wider effects. Agricultural land is increasingly recognised as being vulnerable to climate change, loss of this land will have a combined effect with wider losses elsewhere due to climate change.</p>							
8. To minimise the use of resources and encourage their re-use and safeguarding	<p>Proximity of factors relevant to the resource usage of a site. No spatial factors identified.</p> <p>Local effects. This site will contribute to the need for limestone. However, it may to a degree offset recycled materials that could potentially replace limestone (though source material may be limited in the market catchment of this site). All primary minerals sites work against the SA objective to a degree, so score negatively.</p> <p>Plan level / regional / wider effects. Considered at a local level.</p>	✓		✓		--	--	--

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
9. To minimise waste generation and prioritise management of waste as high up the waste hierarchy as practicable	<p><u>Proximity of factors relevant to managing waste higher up the waste hierarchy.</u> No spatial factors identified.</p> <p><u>Local effects.</u> None noted.</p> <p><u>Plan level / regional / wider effects.</u> The site may have an indirect negative impact on the prioritising the management of waste up the waste hierarchy as a result of providing virgin sand and gravel and reducing the need to recycle sand and gravel from other locations.</p>		✓		✓	-	-	-
10. To conserve or enhance the historic environment and its setting, cultural heritage and character	<p><u>Proximity of historic environment receptors.</u> Conservation areas: none within 1 km; Registered parks and gardens: Norton Conyers (Grade 2, ID 1001068) 3.1km east, Hackfall (Grade 1, ID 1000130) 3.1km west, Studley Royal (Grade 1, ID 1000410) 3.1km west; Registered battlefields: None within 5km; World Heritage Sites: Studley Royal Park including the ruins of Fountains Abbey” (1000130) 3.1km west; Scheduled monuments: “East Tanfield deserted medieval village” (1016260) 1.7km north-east, “Castle Dikes defended Roman villa (1017467) 1.3km south-east, “Earth circles, cursus, pit alignments and burial sites near Nosterfield and Thornborough, including Centre Hill round barrow” (1004912) 2.5km north. Recorded on the Historic England Monuments At Risk Survey</p> <p>Listed buildings: Grade II Listed Building “Friars Hurst” (1315294) 290m north. 5 Grade II Listed Buildings “Sleningford Park, Stables Approximately 150 Metres South-West of Sleningford Park, Barn Approximately 150 Metres South of Sleningford Park, Dovecote Approximately 200m south-west of Sleningford Park, Gate Piers and Gates and Railings approximately 300m to South-East of Sleningford Park” (1150580, 1315295, 1150582, 1150581, 1315296) 600m north. 4 Grade II Listed Buildings “Old Sleningford Hall And Attached Garden Wall, Stables approximately 30m North-East of Old Sleningford Hall, Gates, Gate Piers and Flanking Walls With Railings Approximately 100 Metres South of Old Sleningford Hall, Well Cover Opposite Gates To Old Sleningford Hall” (1150583, 1295839, 1315297, 1174338) 600m north. 4 Grade II Listed Buildings “Stainley Hall, Stables Approximately 50 Metres North-East of Stainley Hall, Gatepiers and Gates to Stainley Hall, Gazebo” (1174130, 1150619, 1150577, 1315293) 800m east</p>	✓		✓		-	-	-
						?	?	?

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>Named designed landscape: Azerley Chase Deer Park and Former Azerley Park circa. 2km south-west, 3 further areas highlighted within 1km of the site.</p> <p>HLC Broad type – enclosed land / HLC Type – Modern improved fields. Undesignated archaeology in this area includes evidence from aerial photographic transcriptions of a landscape containing a number of sites and features of probable later prehistoric and Romano-British date. These are located both within the proposal allocation site, and in the fields to the immediate north and south east. They comprise a number of rectilinear ditched enclosures, suggestive of settlement sites with associated trackways and boundary features.</p> <p>The HLC type of this area is modern improved fields. As the allocation site is a smaller part of a much larger area of similar character type, of which the legibility is partial, the proposed extraction is unlikely to have a major impact upon the historic landscape character of the immediately surrounding area. However, it is acknowledged that within the site the historic landscape character will become invisible as development will replace an earlier field system. As 20% of the overall HLC project area has been identified as modern improved fields, this effect is not considered to be significant.</p> <p>The enclosure to the south east has been archaeologically investigated in advance of the currently permitted quarrying. This has revealed evidence for settlement activity, as well as human burials of the Iron Age period. A desk based assessment of the site's historic environment provided by the submitter concludes that '<i>The recent work on Potgate Quarry has shown that application site contains archaeological remains relating to a mixed field system of a late Iron Age and Roman date. Whilst the crop marks have been identified as part of a wider archaeological resource on the Magnesian limestone ridge they are a relatively common feature and compare poorly to other notable sites to the south in terms of their extent and complexity.</i>'</p> <p>There is, therefore, high potential for associated remains of later prehistoric/Romano-British settlement and burial activity to survive within the allocation area.</p> <p>Local effects. An assessment of impacts to the historic environment undertaken for the site reported that</p>							

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>the site would result in moderate effect on the Grade I listed building 'Friars Hurst' due to a loss of agricultural context. This significance of effect is likely to reduce to minor effect, if adequate screening is retained and maintained on the north site boundary.</p> <p>Impacts to all other designated assets were considered to have no effect on significance.</p> <p>There is high potential for the survival of archaeological remains within the site and although the site has not been archaeologically evaluated, it is assumed that allocating this site would be likely to cause the loss of these archaeological remains if the site is extracted without mitigation. Archaeological potential is deemed uncertain until such time as an archaeological field evaluation is carried out. It is assumed that the archaeological impact will occur throughout the duration of extraction. It is assumed that without mitigation mineral extraction will result in the permanent and total destruction of the undesignated archaeological remains. However, it is assumed that Joint Plan Policy D08 (Historic Environment) – <i>'mitigation of damage will be ensured through preservation of the remains in situ as a preferred solution. When in situ preservation is not justified, adequate provision should be made for excavation and recording before or during development.'</i>, would be adhered to and this would result in an overall minor effect on buried archaeology .</p> <p>The excavations as Potgate have, however, provided an excellent opportunity to investigate the chronology and development of the enclosures and answer important questions about their function. The inclusion of the application area as an extension to Potgate Quarry will provide further opportunity to study these crop marks in detail and go some way in addressing the need for further research and investigation"²³.</p> <p><u>Plan level / regional / wider effects.</u> None noted.</p>							
11. To protect and enhance the quality and	<u>Proximity of landscape / townscape receptors and summary of character.</u> National Parks: None within 10km; AONBs: Nidderdale is 60m to the west; Heritage Coast: None within 10km; ITE: Norton Conyers 2.9km east. Locally protected landscape: Harrogate Local Plan Special Landscape Area 4.8km to south.	✓	✓	✓	✓	-	-	--

²³ Mike Griffiths and Associates Ltd, 2016. The Historic Environment of Potgate Quarry: Addendum to desk based assessment Minerals Plan Application Area, March 2016 in Lightwater Quarries, 2016. Response to NYCC Joint Minerals and Waste Plan SA Assessment.

Sustainability Objective	Key Observations on Significance					Score		
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character of landscapes and townscapes	<p>Core Strategy policy EQ2 recognises special landscape areas as part of the suit of green assets that contribute to the district's character; Site not in Green Belt.</p> <p>NCA: Southern Magnesian Limestone; NYLCA: 6- Magnesian Limestone Ridge – increased pressure for quarrying of the limestone resource resulting in potentially intrusive landscape features, potential damage to archaeological monuments / their setting and deposits as a result of mineral extraction; District LCA: Harrogate LCA - North Ripon Farmland.</p> <p>Intrusion: Undisturbed. Urban Intrusion: The site is rural and according to the CPRE 2007 mapping the context is relatively undisturbed, but the existing quarry and the Lightwater Valley theme park/shopping attraction lie to the south and detract from the experience of tranquillity. Light pollution: the site ranges from <math><0.25</math> to <math>1\text{nanowatts \text{sr}^{24}<="" cm}^2="" math>.<="" p=""> <p>The site lies between around 60m to 90m Above Ordnance Datum (AOD) on the north-east facing slope of a minor ridge (just over 100m in height and on the edge of the AONB). The ridge represents the highest point locally of the escarpment of the Southern Magnesian Limestone NCA. To the east the land falls away gently to the River Ure Valley which cuts through the NCA, and beyond this the limestone escarpment continues to undulate gently at a lower level towards the Vale of Mowbray.</p> <p>Local / plan level / regional / wider effects. There are potential impacts to distant views of parts of the quarry due to its elevation and open aspect. Also, the development of the extension would potentially remove screening hedgerow (with some mature trees) and existing screening landform and although working downslope and seeding and planting worked slopes above would help reduce visual impact. It is unlikely that the low level restored landscape could be satisfactorily integrated. Fiveponds Wood SINC would be left surrounded on three sides by lower land. This is a topographical effect with planting of restored quarry slopes potentially helping with visual integration.</p> <p>Potentially restoration between the existing quarry and its proposed extension would reveal an unnatural</p> </math>1\text{nanowatts></p>							

²⁴ Light pollution and dark skies are measured on a scale <math><0.25</math> (darkest) to \text{cm}^2/\text{sr}. CPRE, 2015; England's Light Pollution and Dark Skies – Interactive Map. Available at <http://www.cpre.org.uk/>. Accessed September 2016.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>landform consisting of a shorter but deep but relatively narrow channel between Fiveponds Wood SINC and the minor ridge to the west. At present the Musterfield extension would form the largely concealed upper part of a 'valley' connected with the existing quarry, and it represents the furthest extent of extraction that has previously been considered desirable.</p> <p>Overall, the short, medium and long effects are considered to be negative from the landscape perspective but the scope for mitigation has been identified, potentially avoiding major negative effects during operations. Restoration enhancements including hedgerow restoration, creating more diverse habitats and increasing recreational use could of course be carried out without quarrying so are a neutral issue in assessing landscape effects.</p> <p>It has been demonstrated that some mitigation of the works would be feasible, taking account of minor variations in topography and introducing carefully sited screen planting.</p> <p>Plan level / regional / wider effects. This site may potentially affect the setting of the Nidderdale AONB due to its proximity. Outward views from within the AONB would need to be checked through an appropriate assessment in the case of a future planning application. However, it is expected that effects are unlikely to be significant.</p> <p>The higher parts of the proposed quarry are likely to be most visible as there is a minor intervening crest centred on the small copse in the centre of the site helping to screen some views from the east, including the settlement of Stainley. There could be some views towards the site from the north-east. There is scope for partial mitigation of distant view through creating bunds with advance planting though sufficient time would be needed for this to become effective, and it could appear unnatural in close views. To the north the River Ure floodplain is concealed by topography, but there could be distant views from areas of higher land which it could be difficult to mitigate though the significance would need to be assessed through appropriate assessment. Views to the west are constrained by topography and vegetation as are views to the south.</p> <p>In the long term, post restoration, a new landscape would have been created, possibly with limestone outcrops and low level pasture, and with new hedgerows. However the degree to which it would integrate</p>							

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	with the surrounding countryside, which includes areas of some historic landscape value, remains questionable given the unlikely topography which would remain.							
12. Achieve sustainable economic growth and create and support jobs	<p>Proximity of factors relevant to sustainable economic growth. The site is reasonably accessible to the A1 giving reasonably good access to York, Leeds and Teesside.</p> <p>Local Effects. The estimated mineral reserve at this site is 3.7 million tonnes of limestone being made available to the market. This would make a significant contribution to the building sector by helping to boost supply of a key building material (as well as supporting freight jobs). However, the success of the operation is based on both Potgate (MJP10) and MJP11 (Gebdykes) quarries working together and being able to supply the concrete batching facility on site.</p> <p>In addition, assessment of this site has shown the interdependent link between this site and the development of North Stainley Village, and the continued development of the site will continue to help drive employment opportunities, for instance on the site itself and by supporting the opportunities for economic growth in North Stainley, through helping to provide a favourable environment for business and public services to grow. Indeed, future proposals for the village, dependent in part on income from the wider estate including the quarry, include business opportunities such as equestrian facilities and new retail facilities²⁵. This results in a moderate positive score, with some uncertainty in the long term depending on whether future plans for North Stainley Garden Village are realised.</p> <p>Plan level / regional / wider effects. None noted</p>		✓	✓	✓	m +	m +	m +
13. Maintain and enhance the viability and vitality of local	<p>Proximity of factors relevant to community vitality / viability. IMD Area: Kirkby Malzeard – not in most deprived 20%. North Stainley is 450m north-east. An outlet shopping centre is 500 m south-east. Lightwater Valley 500m south-east. Musterfield is 300m south-west. Friars Hurst at 150m north.</p> <p>Local Effects The site would support a small number of jobs in quarrying and freight leading to minor</p>		✓	✓	✓	m + ?	m + ?	m + ?

²⁵ Rural Solutions, 2016. North Stainley Garden Village: Towards a zero carbon future.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
communities	<p>positive impacts in the short and medium term. In addition, the linkages between the Quarry, the estate and the North Stainley Village suggest that the quarry is an important link in ensuring the economic and community vitality of North Stainley.</p> <p>There is, however, some concern over traffic impacts around North Stainley (depending on route taken). Overall a moderate positive effect with some uncertainty.</p> <p>Plan level / regional / wider effects. None noted.</p>							
14. To provide opportunities to enable recreation, leisure and learning	<p>Proximity to recreation, leisure and learning receptors. Rights of Way: Bridleway 15.102/9/1 runs along eastern boundary of site. Bridleway 15.102/10/2 runs parallel to eastern boundary at 430m east. Footpath 15.102/7/1 parallel to north eastern boundary at 455m north-east. Footpath 15.102/3/1 lies 410m north. Footpath 15.102/2/1 lies 440m north. No common land or village greens within 500m.</p> <p>Local Effects. Footpaths are generally relatively distant from this site and may be out of range of dust, though noise (particularly if blasting occurs) and visual impacts might still occur. The one exception is Bridleway 15.102/9/1 which runs along eastern boundary of site. This could be impacted by noise, dust and visual impacts. Anecdotal evidence provided by the applicant suggests that to date this has not been a particular issue²⁶, though the potential for future impacts remains. Screening along the boundary site would potentially mitigate impacts to the bridleway.</p> <p>Overall effects are considered moderate negative in the short to medium term prior to any mitigation in the form of footpath diversions taking place. In the longer term the restoration of this site as part of this proposal is likely to be highly positive for recreation due to the creation of high quality countryside.</p> <p>Plan level / regional / wider effects. None Noted.</p>		✓	✓		m	m	0

²⁶ According to the response provided by the submitter "there have been no instances of noise, dust, visual or horse spooking reported, even along the existing bridleway 15.102/9/1, which runs within 5m of the working quarry". Lightwater Quarries, 2016. Response to NYCC Joint Minerals and Waste Plan SA Assessment.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
15. To protect and improve the wellbeing, health and safety of local communities	<p><u>Proximity to population / community receptors / factors relevant to health and wellbeing.</u> North Stainley is 450m north-east. An outlet shopping centre is 500m south-east. Lightwater Valley 500m south-east. Musterfield is 300m south-west. Friars Hurst is 150m north. Isolated properties / farms also occasionally around site - closest North Stainley Hall at 450m south-east. School in North Stainley is 650m north-west. No health centres, hospitals or clinics.</p> <p><u>Local effects.</u> Dust may affect some isolated nearby receptors such as Musterfield and noise could be an issue to even greater distances if blasting, for example, occurs. However receptors are very limited in number. Traffic may present an increased hazard to non-motorised road users on local roads. If a bridleway continues to run alongside this site there may be future issues of trespass resulting in possible injury without mitigation.</p> <p>As an extension to an existing quarry these potential impacts are measured from a baseline where, if the site were not approved, operations would wind down and impacts would cease, so compatibility with this objective is rated as having a minor effect.</p> <p>Mitigation measures including a dust action plan, or the segregation of the bridleway from the access road would help to reduce any impacts. The existing site has already conducted a health impact assessment which should be extended to incorporate possible health effects from this site.</p> <p><u>Plan level / regional / wider effects.</u> None noted.</p>		✓	✓	✓	-	-	0
16. To minimise flood risk and reduce the impact of flooding	<p><u>Proximity to flood zones.</u> The site is in Flood Zone 1. About 5% of the site in areas subject to surface water flooding (low to high risk). Most of the site lies in a 1km square where <25% of the km square is susceptible to Clearwater groundwater flooding. The eastern part of the site is in a km square where groundwater flooding susceptibility information is not available.</p> <p>A nearby extension to the same quarry reports that <i>'there are no obvious points of groundwater ingress in the quarry excavations and most of the joint surfaces show little or no evidence of solution despite some karstic features in the wider local area'</i>. A borehole on this site was dry to 12.2m below ground level.</p>					0	0	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>This site is not at risk from the 1:20 (5%) flood event. CFMP: Ouse CFMP / River Washburn unit / Policy 6. Climate change would not affect the site in the latter part of the plan period. Climate change effects on surface water flooding are likely to increase the extents of the areas at risk and also the depth of flooding for each event respectively.</p> <p>Local effects. A Strategic Flood Risk Assessment (SFRA) Sequential Test²⁷ concluded that the site would 'Pass'. The site is subject to a negligible degree of flooding and would be 'less vulnerable' in terms of the categories of development promoted by the planning system.</p> <p>A site specific flood risk assessment would need to further examine risk of groundwater flooding, any future climate change risk, and how SuDS could help manage run off.</p> <p>Plan level / regional / wider effects. None noted.</p>							
17. To address the needs of a changing population in a sustainable and inclusive manner	<p>Proximity to factors relevant to the needs of a changing population. The site does not conflict with any known allocations in other plans.</p> <p>Local Effects. The success of the operation is based on both Potgate (MJP10) and MJP11 (Gebdykes) quarries working together and being able to supply the concrete batching facility on site.</p> <p>Plan level / regional / wider effects. The site would make a contribution to self-sufficiency in the supply of limestone and may also support markets outside of the plan area.</p>		✓	✓		+	+	+

²⁷ The Sequential Test approach is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. The aim should be to keep development out of medium and high flood risk areas (Flood Zones 2 and 3) and other areas affected by other sources of flooding where possible.

Cumulative / Synergistic effects²⁸	
Planning context	North Stainley is 450m north-east. An outlet shopping centre is 500 m south-east. Lightwater Valley 500m south-east. Musterfield is 300m south-west. Friars Hurst at 150m north. North Stainley is a Group C settlement (only very limited growth). Although the local development framework has no allocations in place, the earlier 2001 Local Plan shows no allocations within 200m this site.
Other Minerals and Waste Joint Plan Sites	MWJP sites within 5km: WJP24 Potgate Quarry 500m south, MJP14 Ripon Quarry 2.1km east, MJP06 Langwith Hall Farm 4.4km north, MJP07 Oaklands 4.4km north.
Historic minerals and waste sites	Numerous historic applications clustered around Nosterfield (3.6km north), West Tanfield (2.1km north) and North Stainley (1.2km east). Fewer applications to south (2 around Sutton Grange (1.9km south). None to west. Active Magnesian limestone quarry adjacent – Potgate Quarry. Dormant sand and gravel site (Daw Wood) is 1.1km west.
Landscape Impacts	There would be cumulative landscape character / visual effects with the existing Potgate Quarry and recently approved Musterfield extension.
Biodiversity Impacts	In terms of biodiversity restoration, any benefit could be maximised by aligning with existing commitments and restoration at other nearby sites. With uncertainty related to how other sites are restored.
Traffic Impacts	There is the potential for cumulative traffic (and associated noise and dust) impacts that could occur with other minerals and waste sites, depending on routes taken, with uncertainty noted dependent on routes taken by this and other sites.
Limitations / data gaps	
No significant data gaps. More detailed assessment may be required to fully evaluate a number of effects however. This should be addressed at any subsequent planning application stage.	
Mitigation requirements identified through Site Assessment process	
<ul style="list-style-type: none"> • Design to mitigate impact on ecological issues. in particular with regard to avoiding impacts on Five Ponds Wood SINC and demonstrating that minerals extraction at this site will not destroy or damage the interest features for which the Ripon Parks SSSI is designated and in respect of hedgerows and veteran or mature trees and protected species. • Design to minimise the irreversible loss of best and most versatile agricultural land and to protect high quality soil resources. • Design to include landscaping to mitigate impact on the Grade I Listed Building 'Friars Hurst', Nidderdale AONB, tourism facilities and local 	

²⁸ Cumulative effects have been factored into the scoring of each SA objective in the assessment framework.

landscape features such as historic field patterns.

- Design to include site specific flood risk assessment; for an FRA to be satisfactory, it will need to include necessary mitigation, such as, compensatory storage, attenuation and SuDS as appropriate.
- Suitable arrangements for public rights of way, diversion or retention, and associated mitigation, as appropriate.
- Traffic assessment to ensure suitable arrangements for access, including along Water Lane to the A6108 taking account of the use of the lane as a public right of way.
- Appropriate arrangements for the assessment of, control of and mitigation of effects such as noise, dust, blasting and issues regarding public safety.
- Appropriate restoration scheme (using opportunities for habitat creation, with well-informed justification for any wetland creation, considering also the potential adverse impacts of new wetland e.g. birdstrike safeguarding zone / referred to Defence Infrastructure Organisation (DIO)), noting that any proposal for restoration to agriculture should be tested for viability – e.g. relative to the depth of extraction.

DRAFT

WJP08 – Allerton Park, near Knaresborough – ALLOCATED SITE

Site Name	WJP08 Allerton Park, near Knaresborough (XY 440797 459673)
Current Use	Landfill
Nature of Planning Proposal	Retention of landfill and associated landfill gas utilisation plant and use of site for growth of energy/biomass crops beyond 2018. Proposed composting, transfer station and materials recycling facility, recycling (including of minerals for secondary aggregates).
Size	29ha
Proposed life of site	Until 2033
Notes	Site currently has planning permission until 2018 for landfill. Possible restoration: no detailed design at present, but current approved scheme is agriculture and woodland. There would be built infrastructure to support the extension to the landfill operations and the recycling. The Allerton Waste Recovery Park facility adjacent to the site is currently under construction.

SA FINDINGS SUMMARISE SIGNIFICANT EFFECTS ONLY. A WIDER RANGE OF CONSTRAINTS AND OPPORTUNITIES WERE INITIALLY ANALYSED AND DISTILLED DOWN TO ONLY THOSE WITH THE POTENTIAL TO BE SIGNIFICANT (SEE ALSO SITE ASSESSMENT METHODOLOGY SUMMARY REPORT FOR A FULL LIST OF CONSTRAINTS AND OPPORTUNITIES).

Sustainability Objective	Key Observations on Significance	Score						
		P	T	D	I	S	M	L
1. To protect and enhance biodiversity and geo-diversity and improve habitat	<p>Proximity of international / national and local designations and key features. Special Area of Conservation / Special Protection Area (SAC / SPA): 9km south Kirk Deighton SAC; Sites of Special Scientific Interest (SSSI): not in SSSI Impact Risk Zone (IRZ). Upper Dunsforth Carrs SSSI is 4km north-east, Hay-a-Park SSSI 4.1km south-west.</p> <p>Sites of Importance for Nature Conservation (SINC): SE45-07 Allerton Park (ratified SINC) covers about 25% of site (veteran trees and grassland); Allerton Park Lakes SINC (ratified) is 25m beyond southern</p>	✓		✓		-	-	+
								?

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
connectivity	<p>boundary; SE45-03 Bog Plantation deleted SINC is 400m east, SE45-08 Broadleaved Wood SINC (ratified) is 830m west; SE46-07 Marton-cum-Grafton Carr (ratified SINC) is 1.6km north.</p> <p>UK Priority Habitat: according to map site is approximately 80% Lowland fens, small patches of deciduous woodland within 200m with small amount of overlap (approximately 5%) in the north-east corner of the site – however much of this land appears to have been lost to previous quarrying / landfill activity (remnants may remain on site in north-east and south-west and along perimeters). Site is within the district Green Infrastructure (GI) corridor (Allerton Park); Shepherds Wood (ancient woodland) overlays approximately 5% of the site in the north-east corner of the site. England Habitat Network (EHN): Patches of woodland EHN habitat overlap north east and south of site.</p> <p>Site visit noted water bodies, grassland, arable land, woodland and standalone trees on site.</p> <p>Although previously the site may have contained important habitats, much will have been lost due to historic quarrying / landfill. However, aerial photos appear to show areas of woodland, wetland and grassland on site, and mapped data suggests there may be remnant ancient woodland in the north east fringe of the site and possibly remnant fen on site (which would need to be investigated, as this may be a mapping anomaly). This suggests the site could support amphibians, nesting birds, badger, and brown hare (but no evidence). An up to date survey would be required.</p> <p>Local effects. Impacts on the water table may occur through the proposed works, though sensitive wildlife sites are some way distant. Potential impacts will be dependent on the location of facilities within this site, with most impacts arising in the short term and depending on the potential impact on ancient woodland and protected species. During the operational phase new impacts are less likely (though species / habitats may not recover) but in the long term there may be a very minor benefit through the proposed restoration, which could be enhanced if biodiversity were further integrated into restoration.</p> <p>Plan level / regional / wider effects. Upper Dunsforth Carrs SSSI lies to the north-east, but is considered to be too distant to be affected. The site is unlikely to have a significant effect on Natura 2000 or other designated nature conservation sites as a result of the proximity of this site to the receptors and the limited</p>							

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	pathways to each of the designations.							
2. To enhance or maintain water quality and improve efficiency of water use	<p>Proximity of water quality / quantity receptors. Source Protection Zone (SPZ): no, Nitrate Vulnerable Zone (NVZ): no; River Basin Management Plan (RBMP): Humber RBMP: nearest surface water body is 'River Nidd from Crimple Beck to River Ouse' (1.2km south) which is of moderate ecological potential / good by 2027 (no connectivity noted). RBMP Groundwater Unit: SUNO Sherwood Sandstone (chemical quality poor / at risk / good by 2027).</p> <p>Catchment Abstraction Management Strategy (CAMS): surface water resources available at least 50% of time. At low flows new extraction licenses may be more restricted.</p> <p>Local effects. There are no major concerns in relation to water due to the lack of major spatial constraints. Though landfill and other waste management uses could have an impact on groundwater and surface water (e.g. via ditches in the north west part of Shepherd's Wood or through leachate passing through soil) this is expected to be dealt with through the environmental permitting system.</p> <p>Plan level/ regional/ wider effects. There is the potential pollution from the site could pass into the wider water environment via surface and groundwater pathways, however it is assumed these risks would be adequately controlled by good site management and adherence to the environmental permitting system during operation.</p>					0	0	0
3. To reduce transport miles and associated emissions from transport and encourage the use of sustainable	<p>Proximity of transport receptors. The site is adjacent to the A1 and A168 giving the site good access to York, Harrogate and Knaresborough. Access: existing access at Allerton Park Landfill is onto A168 approximately 3km north of junction 47 of A1(M). Public Right of Way (PRoW): this site is affected by a registered PRoW which must be kept clear of any obstruction until such time as an alternative route has been provided and confirmed by order.</p> <p>Light Vehicles: 8 two-way movements (as sourced from Application details NY/2011/0328/ENV). Heavy Goods Vehicles (HGVs): 72 two-way movements (as sourced from Application details NY/2011/0328/ENV).</p> <p>Net change in daily two-way trip generations: light vehicles: 0; HGVs: 0. Traffic assessment rating: Yellow –</p>		✓		✓	-	-	-
						?	?	?

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
modes of transportation	<p><i>'The HGV access routes to the site are part of a Section 106 legal agreement restricting HGVs to dedicated approach routes to minimise traffic impacts. Given that the traffic and HGV generations of the site are to remain the same, the submission is therefore unlikely to result in any additional traffic impacts although it is recommended that routing agreements are maintained as part of any planning approval to continue operation of the site to minimise traffic impacts on local communities.'</i></p> <p>Rail: nearest rail network 2.4km south / railhead 34.9km south. Strategic Road: site is adjacent to A1 and A168; Canal / Freight waterway: River Ouse is 6.2km north.</p> <p>Local effects. 80 vehicles per day would use this site. However, this would be a continuation of existing vehicle movements from a site which currently has planning permission to operate until 2018 (though this assessment notes the extension of impacts that would otherwise have ceased into the future). This is noted within the Highways Assessment as acceptable on to the A168 County Road, though minor works may be required to improve the existing access arrangements (though the existing Allerton Waste Recovery Park (AWRP) development also requires improvements to access arrangements which may lessen the need for some further improvements to access from this site).</p> <p>Sustainable travel options seem limited though a site specific traffic assessment would be required to look at this in more detail. The site is not likely to generate significant passenger transport demand.</p> <p>There will be some positive impacts through the transfer of waste, which will presumably bulk up and sort waste for onward processing (reducing the need for longer journeys).</p> <p>Plan level / regional / wider effects. There would not be a net gain in traffic as a result of the proposal, therefore impacts are not expected to the wider plan area.</p>							
4. To protect and improve air quality	<p>Proximity of air quality receptors. Not within Hazardous Substances consent consultation zone; Air Quality Management Areas (AQMA): None within 2km</p> <p>Built development receptors: Coneythorpe 1.2km west, Claretton Moor 1.3km west; Arkendale Moor 1.5km north-west, Flaxby 1.5km south-west, scattered buildings to the north; occasional farm buildings with 2km,</p>		✓	✓	✓	-	-	+ ?

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>buildings associated with Allerton Park within 2km. Walls Close House 200m east.</p> <p>Local effects. Potential air quality impacts include dust from construction and traffic pollutants, however due to the proximity of potential receptors significant impacts are considered unlikely, with a score on minor negative in the short and medium term. There is the potential for a long term positive effect on air quality following restoration.</p> <p>Plan level / regional / wider effects. None noted.</p>							
5. To use soil and land efficiently and safeguard or enhance their quality	<p>Proximity of soil and land receptors. Agricultural Land Classification (ALC): majority of site mapped as Grade 3, with a smaller area of Grade 2. However, much of this has been quarried / landfilled. Most of the site in former quarry - contamination risk may need further investigation. Subsidence: Site does not lie within or adjacent to a development high risk area.</p> <p>Local effects. Much of this site has already been quarried (though a soil stockpile was observed during the site visit. Impacts will be insignificant. The proposals for this site to manage waste in a variety of ways are likely to have positive and negative effects on this objective.</p> <p>Composting, recycling waste and recovering energy / biomass crops would help to maximise the use the land efficiently and is considered a positive effect.</p> <p>However, other forms of waste management may result in some contamination of soils depending upon the type of processing due to leachate and/or spillage. Landfill has implications on land take and potentially extending the existing facility over the course of the plan period. There is the potential therefore for this type of waste management to cause contamination from the waste products, run-off and leachate. It is assumed that permission and protocols already in place for this would be renewed and continued as part of the waste management proposal so many of these impacts would be abated.</p> <p>On balance, the use of this site has been assessed to have a positive impact associated with this option and a degree of uncertainty associated with the scoring.</p>	✓	✓	✓		+	+	+
						?	?	?

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	Plan level / regional / wider effects. Same as local effects, if restored to agriculture and forestry has the potential to contribute positively to soil in the wider plan area.							
6. Reduce the causes of climate change	<p>Proximity of factors relevant to exacerbating climate change. No spatial factors identified.</p> <p>Local effects. As climate change is a global issue effects are reported in the wider effects below.</p> <p>Plan level / regional / wider effects. Proposal for this site to continue its use as a waste management facility may have mixed effects on climate change. Whilst the outcomes of the waste management processing such as recycling and composting could have positive implications on climate change through the re-use of resources in the long-term. On balance impacts are considered minor positive on the SA Objective.</p>	✓		✓	✓	+	+	+
7. To respond and adapt to the effects of climate change	<p>Proximity of factors relevant to the adaptive capacity²⁹ of a site. Site is in Flood Zone 1; About 5% - 10% of the site is subject to low risk (1:1000 (0.1%)) to high risk (1:30 (3.33%)) surface water flooding.</p> <p>Catchment Abstraction Management Strategy (CAMS): surface water resources available at least 50% of time. At low flows new extraction licenses may be more restricted.</p> <p>ALC Grade 3 and 2. However, much of this has been quarried / landfilled.</p> <p>Climate change to river flood risk is unlikely to affect the site in the latter part of the plan period.</p> <p>Local effects. Climate change to river flood risk is unlikely to affect the site in the latter part of the plan period. Climate change effects on surface water flooding are likely to increase the extents of the areas at risk and also the depth of flooding for each event respectively. A changed site profile will have affected where water gathers. Although there is a future opportunity to strengthen an ecological network through the proposed site restoration.</p>					0	0	0

²⁹ Adaptive capacity is defined as the ability of a system to adjust to climate change to moderate potential; damage or take advantage of opportunities (adapted from CARE International, 2015. Adaptive Capacity [URL: http://www.careclimatechange.org/tk/integration/en/key_concepts/adaptive_capacity.html]

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	Plan level / regional / wider effects. None noted.							
8. To minimise the use of resources and encourage their re-use and safeguarding	<p>Proximity of factors relevant to the resource usage of a site. The existing landfill gas utilisation plant and use of site for growth of energy/biomass crops.</p> <p>Local effects. The proposal for this site to continue and expand its management of waste higher up the waste hierarchy is likely to have positive implications for resources. Recycling (including mineral for secondary aggregates) and composting waste is positive for minimising and re-using resources. In addition, growth of energy/biomass crops and landfill gas utilisation as part of this proposal would contribute to minimising the use of primary resources.</p> <p>The significance of these effects would rely upon the quantum of waste used in these processes but should overall have a positive impact.</p> <p>Plan level / regional / wider effects. See local effects above.</p>	✓		✓	✓	m +	m +	0
9. To minimise waste generation and prioritise management of waste as high up the waste hierarchy as practicable	<p>Proximity of factors relevant to managing waste higher up the waste hierarchy. The existing landfill gas utilisation plant and use of site for growth of energy/biomass crops.</p> <p>Local effects. The proposal for this site will manage waste at all stages of the waste hierarchy. Whether it is as high up as is practicable is dependent on the wastes accepted at the landfill site. There would be a continuation of associated landfill gas utilisation plant and use of site for growth of energy/biomass crops beyond 2018. Whilst the function of the existing landfill would still occur, co-locating other waste management processes together and expanding the type of processing to occur would help to ensure that landfill is minimised.</p> <p>The significance of these effects would rely upon the quantum of waste used in these processes but should overall have a minor to major positive impact.</p> <p>Plan level / regional / wider effects. The waste management processes on the site would have a positive</p>	✓		✓		m +	m +	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	effect on waste management and the waste hierarchy in the Joint Plan Area.							
10. To conserve or enhance the historic environment and its setting, cultural heritage and character	<p>Proximity of historic environment receptors. Conservation Areas: None within 1km; Registered Parks and Gardens: overlap with Allerton Park to the south. Registered battlefields: None within 5km; World Heritage Sites: None within 5km; Scheduled Monuments: None within 2km; Listed buildings: 3 within 1km (all to south of site) associated with Allerton Park Estate; Non-designated historic parks and gardens: Allerton Park overlaps south-east corner; Named designated landscapes: Designed Landscape (Allerton Park) borders south and east of site (associated with Capability Brown).</p> <p>Historic Landscape Characterisation (HLC) Broad type – Extractive; HLC Type – Quarry aggregates. The HLC type of this area is quarry aggregates, with an invisible legibility. The site is therefore assumed to have no overall impact HLC.</p> <p>Local effects. Undesignated archaeology in this area includes evidence for a wider landscape of later prehistoric and Romano-British activity and settlement. This evidence is known from a combination of previous archaeological survey and fieldwork undertaken in advance of and during mineral extraction within this area. However, it is anticipated that there will be no impact upon the archaeological resource as the proposed development is within an area of former quarry, where it is assumed with a high degree of certainty that any archaeological resource has previously been destroyed.</p> <p>There may however, be impacts to the setting and extent of registered parkland and impacts on the setting of the Grade II* Temple of Victory and the Grade I listed castle. Archaeological remains have been lost from the quarry previously³⁰. As the neighbouring AWRP development predicted a large adverse effect on Allerton Park and Gardens as well as the nearby listed buildings, as well as minor adverse effects on more distant</p>		✓	✓		-	-	0

³⁰ Amey Cespa, 2011, Allerton Waste Recovery Park Environmental Statement Non-Technical Summary

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>receptors prior to mitigation it is considered that this site too would have an impact prior to mitigation, albeit a smaller one, depending on the scale of the proposals. Restoration would have no impact.</p> <p>Plan level / regional / wider effects. None noted.</p>							
11. To protect and enhance the quality and character of landscapes and townscapes	<p>Proximity of landscape / townscape receptors and summary of character. National Parks / Area of Outstanding Natural Beauty (AONBs) / Heritage Coast: none within 10km; ITE: Upper Dunsforth ITE lies 4.2km north-east.</p> <p>National Character Area (NCA): Southern Magnesian Limestone; North Yorkshire Landscape Character Assessment (LCA): 06 - Magnesian Limestone Ridge: Moderate to high visual sensitivity (views to and from the Magnesian limestone ridge are sensitive to the introduction of tall vertical elements or large-scale development); High ecological sensitivity (as a result of the presence habitats sensitive to changes in land management). High landscape and cultural sensitivity (as a result of the nationally significant Neolithic and Bronze Age monuments, in addition to the predominantly intact landscape pattern). District LCA: Site encompasses 3 character types in Harrogate LCA.</p> <p>District landscape designations: Not within 5km; Green belt: No;</p> <p>Intrusion: Disturbed – due to the A1(M) corridor, and because the site is within a mineral extraction site; Light pollution: the site ranges from 0.5 to 4NanoWatts/ cm²/ sr³¹. However, construction work is underway on the AWRP which will include lighting.</p> <p>Local effects. This site could affect views from Allerton Park, which is on the Register of Parks and Gardens. However, the proposed developments are unlikely to affect views from settlements.</p> <p>As well as the setting of Allerton Park there could be effects on the setting of the wider landscape undergoing restoration and enhancement (apart from the AWRP site itself). The restoration of Allerton Park</p>	✓		✓		-	-	-

³¹ Light pollution and dark skies are measured on a scale <0.25 (darkest) to >32(brightest) NanoWatts/ cm²/ sr. CPRE, 2015; England's Light Pollution and Dark Skies – Interactive Map. Available at <http://www.cpre.org.uk/>. Accessed September 2016.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>Quarry to the north has been largely completed, whilst there is a restoration scheme for Allerton Quarry Landfill site which involves filling up to at least original ground levels (to a domed landform) to tie in with the Allerton Park parkland and with the adjoining countryside. There is an approved landscape scheme for the AWRP site (which overlaps with the current WJP08 submission boundary) and there is a substantial Landscape Management and Enhancement Zone Section 106 fund covering a number of character areas around the AWRP site too. It is not clear where the proposed waste developments might be located within the site but it is important that restoration is not impeded. However there will be at least a minor residual adverse impact due to the loss of part of the nationally designated parkland. (NB this differs from the historic environment assessment which puts the impact at neutral following restoration.)</p> <p>The scale of the proposals needs to be clarified. A lot of effort has been put into landscape enhancement to compensate for the adverse impact of the AWRP development within the countryside and adjacent to a registered park. This submission is likely to be a detractor in terms of landscape and visual impact, which in combination with similar development nearby would have negative cumulative effects without mitigation.</p> <p>Plan level / regional / wider effects. None noted.</p>							
12. Achieve sustainable economic growth and create and support jobs	<p>Proximity of factors relevant to sustainable economic growth. Allerton Park has employees working on site as part of the existing waste management facilities.</p> <p>Local effects. Widening the scope of waste management facilities is likely to require the creation of a limited amount of further jobs and also contribute to energy security (through landfill gas / biomass crops). The management of more waste higher up the waste hierarchy through recycling and re-use should also have benefits in reducing the amount of waste to be landfilled. Similarly, where waste can be used to generate energy there will be a reduction of waste to landfill. These processes in-combination would help to reduce the amount payable for landfill tax which would have economic benefits. The relationship with the adjacent AWRP facility is unclear, so uncertainty is added.</p> <p>Plan level / regional / wider effects. Recycling minerals from secondary aggregates may also become income generating. Overall, it is considered that this is likely to have minor positive effects with the potential</p>		✓	✓	✓	m + ?	m + ?	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	for significant economic effects subject to the implementation of the uses proposed.							
13. Maintain and enhance the viability and vitality of local communities	<p>Proximity of factors relevant to community vitality / viability. Coneythorpe 1.2km west, Clareton Moor 1.3km west; Arkendale Moor 1.5km north-west, Flaxby 1.5km south-west. Index of Multiple Deprivation (IMD): Eastern part in IMD area Ribston, western part in IMD Area Claro.</p> <p>Local effects. Job opportunities will be created but are likely to be limited as a result of the proposed use, particularly given that it is an operational waste management facility. The proposal for waste management is unlikely to benefit the immediate settlements in any significant way. Possible impacts on the setting of Allerton Castle may affect tourism and thus tourist jobs in the local area, however these are likely to be minor.</p> <p>Overall a neutral effect is expected to the SA objective.</p> <p>Plan level / regional / wider effects. None noted.</p>					0	0	0
14. To provide opportunities to enable recreation, leisure and learning	<p>Proximity to recreation, leisure and learning receptors. PRoW: Bridleway 15.2/5/1 appears to overlap north east site boundary slightly. Further bridleways lie 300m east, 30m north; 120m west. Common land / Village Greens: No</p> <p>Local effects. There is a potential issue with a bridleway, as submission area includes the track to Walls Close properties, which is a bridleway. However, it is expected that this would be accommodated as this bridleway was created as part of the landscaping for the original sand and gravel development. Impacts on Allerton Castle and Parkland may diminish recreational opportunities locally if unmitigated.</p> <p>Plan level / regional / wider effects. None noted.</p>		✓	✓	✓	-	-	0
15. To protect and improve the wellbeing, health and	<p>Proximity to population / community receptors / factors relevant to health and wellbeing. Built development receptors: Coneythorpe 1.2km west, Clareton Moor 1.3km west; Arkendale Moor 1.5km north-west, Flaxby 1.5km south-west, scattered buildings to the north; occasional farm buildings with 2km, buildings associated with Allerton Park within 2km. Walls Close House 200m east; No schools or hospitals</p>		✓	✓	✓	-	-	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
safety of local communities	<p>within 1km. No on-site National Grid infrastructure (e.g. pipelines).</p> <p>Local effects. Noise is unlikely to be significant due to proximity to the A1, while dust, odour and bio-aerosol impacts would at worst, under certain conditions affect buildings in the area. Though the effect is likely to be insignificant given the distances to receptors³².</p> <p>On balance, it is predicted that the proposals on this site may have a minor negative effect over the course of the Joint Plan period.</p> <p>Plan level / regional / wider effects. None noted. It is expected that the potential impacts identified above would be local in nature.</p>							
16. To minimise flood risk and reduce the impact of flooding	<p>Proximity to flood zones. Site is in Flood Zone 1; Surface water flooding: about 5% to 10% of the site is subject to low risk (1:1000 (0.1%)) to high risk (1:30 (3.33%)) surface water flooding..</p> <p>Most of this site is in two 1km squares which the Environment Agency's Areas Susceptible to Groundwater Flooding indicates have a <25% vulnerability to Clearwater flooding. The remainder of the site (along the eastern boundary) is not mapped.</p> <p>A flood risk assessment for construction of lagoons on part of the site did not consider groundwater but considered the site would not be at risk of flooding³³. Earlier proposals for the extension of sand and gravel</p>					- ?	- ?	- ?

³² The Environment Agency have used a minimum 50 m standoff distance for domestic properties for sludge spreading to land (see: Defra, 2010. Odour Guidance for Local Authorities [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69305/pb13554-local-auth-guidance-100326.pdf]). Elsewhere guidance recognises that distance is a key factor in reducing odour risk though does not give guidance on distance thresholds, rather suggesting the use of odour plume modelling in relation to sensitive receptors (see Institute of Air Quality Management, 2014. Guidance on the assessment of odour for planning [URL: <https://www.cambridge.gov.uk/sites/www.cambridge.gov.uk/files/documents/cnfe-aap-io-iaqm-odour-assessment-guidance.pdf>])

³³ Hydrologic, 2009. Pro Forma for Undertaking a Flood Risk Assessment [URL: <https://onlineplanningregister.northyorks.gov.uk/register/PlanAppDisp.aspx?recno=5994>].

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>extraction at the site found 'hydraulic continuity between the Sherwood Sandstone Aquifer and sand and gravel though concluded that due to the size of the site impacts would be small³⁴. However, as this development is unlikely to extend the depths of any features risks are considered to be low, but should still be investigated.</p> <p>This site is not at risk from the 1:20 (5%) flood event.</p> <p>Local effects. SFRA Sequential Test undertaken for the site concluded that this site would 'Pass'. A site specific flood risk assessment would need to further examine risk of groundwater flooding and how SuDS could be used to sustainably manage surface water runoff.</p> <p>Plan level / regional / wider effects. None noted.</p>							
17. To address the needs of a changing population in a sustainable and inclusive manner	<p>Proximity to factors relevant to the needs of a changing population. No spatial factors identified.</p> <p>Local effects. Allerton Park would enable more waste to be processed in a sustainable way as it is promoting recycling and reuse of waste and as well as energy/biomass crops generation using waste products. This responds well to the overall need and requirement of the population to process waste more efficiently and effectively in a direct way. Site appears to have some overlap with AWRP, but largely skirts around its perimeter.</p> <p>Overall, the site would support effective waste management and energy security.</p> <p>Plan level / regional / wider effects. As local effects above.</p>		✓	✓	✓	+	+	+

³⁴ Hanson Aggregates –North. 1999. The extension of sand and gravel extraction and retention of existing and retention of existing quarry facilities at Allerton Park, Knaresborough, North Yorkshire – Environmental Impact Assessment Non-Technical Summary [URL: <https://onlineplanningregister.northyorks.gov.uk/register/PlanAppDisp.aspx?recno=3992>]

Cumulative / Synergistic effects³⁵	
Planning context	Coneythorpe 1.2km west, Clareton Moor 1.3km west; Arkendale Moor 1.5km north-west, Flaxby 1.5km south-west all lie within 2km. None of these sites are listed in Harrogate's settlement hierarchy so development levels would be expected to be low and in line with Harrogate's Policy SG3 'Settlement Growth: Conservation of the Countryside, Including Green Belt' which focuses on affordable homes, rural building conversions, small scale community facilities and sustainable rural enterprises.
Other Minerals and Waste Joint Plan Sites	None within 5km.
Historic minerals and waste sites	The site lies next to Allerton Waste Recovery Park. There are also several historic applications associated with minerals extraction and landfill. Claro (minerals extraction) was granted in the 1950s, and lies about 60m west. 450m to the south-west there is another group of historic quarrying and landfill applications around Flaxby Quarry/ Allerton Grange Farm. Borrow pits associated with the A59 were granted in the 1950s about 1km south. About 1.5km south east lie a cluster of applications associated with Hopperton Quarry and related A59 Borrow Pits.
Landscape Impacts	The submission is likely to be a detractor in terms of landscape and visual impact, which in combination with similar development nearby would have negative cumulative effects without mitigation.
Limitations / data gaps	
No significant data gaps. More detailed assessment may be required to fully evaluate a number of effects however. This should be addressed at any subsequent planning application stage.	
Mitigation requirements identified through Site Assessment process	
<ul style="list-style-type: none"> • Design to mitigate impact on ecological issues, in particular with regard to avoiding impacts on Allerton Park Lakes SINC and protected species. • Design to minimise the irreversible loss of best and most versatile agricultural land and to protect high quality soil resource. • Design of development and landscaping of site to mitigate impact on heritage assets (Allerton Park Registered Park and Garden, Coneythorpe Conservation Area and Listed Buildings including Allerton Park Mansion, Church of St Mary and the Temple of Victory) and local landscape features and their respective settings, Allerton Waste Recovery facility and right of way. • Design to include suitable flood risk assessment; for an FRA to be satisfactory, it will need to include necessary mitigation, such as compensatory storage, attenuation and SuDS as appropriate. 	

³⁵ Cumulative effects have been factored into the scoring of each SA objective in the assessment framework.

- Design to include suitable arrangements for public rights of way (diversion or retention, and associated mitigation, as appropriate).
- Design to include suitable arrangements for access to local roads including the A168, including a traffic management plan.
- Appropriate arrangements for control of and mitigation of the effects of noise and dust.
- Appropriate restoration scheme using opportunities for habitat creation.

DRAFT

WJP24 Potgate (former plant site), North Stainley, Recycling – ALLOCATED SITE

Site Name	WJP24 Potgate (former plant site), North Stainley, Recycling (XY 427775 475637)
Current Use	Redundant crushing and screening plant.
Nature of Planning Proposal	Recycling of inert construction and demolition waste for secondary aggregates.
Size	0.75ha.
Proposed life of site	Tied to Potgate Quarry permission which is 1 June 2022 (if MJP10 is not developed).
Notes	The intention would be to operate the recycling to extend the life of Potgate Quarry. Restoration to be incorporated into Potgate Quarry restoration scheme.

SA FINDINGS SUMMARISE SIGNIFICANT EFFECTS ONLY. A WIDER RANGE OF CONSTRAINTS AND OPPORTUNITIES WERE INITIALLY ANALYSED AND DISTILLED DOWN TO ONLY THOSE WITH THE POTENTIAL TO BE SIGNIFICANT (SEE ALSO SITE ASSESSMENT METHODOLOGY SUMMARY REPORT FOR A FULL LIST OF CONSTRAINTS AND OPPORTUNITIES).

Sustainability Objective	Key Observations on Significance	Score						
		P	T	D	I	S	M	L
1. To protect and enhance biodiversity and geo-diversity and improve habitat connectivity	<p>Proximity of international / national and local designations and key features. Natura 2000: North Pennine Moors Special Area of Conservation (SAC) / Special Protected Area (SPA) is 8.2km west; Site of Special Scientific Interest (SSSI): 3 SSSIs within 5km. Nearest is Cow Myers SSSI at 2.5km south. Ripon Parks is 2.4km east. Hack Fall Wood is 3.8km west. SSSI Impact Risk Zone (IRZ): The site is in the outer area of SSSI IRZ for Ripon Parks SSSI (no data available).</p> <p>Site of Importance to Nature Conservation (SINC): SE27 -19 (Coal Bank Wood - Ratified) is 1.9km west, while SE27-24 (Ellington Banks) is 1.7km south. UK Priority Habitat: Deciduous woodland is 800m west. 750m east, 350m north and 600m south.</p> <p>Local effects. There are unlikely to be any effects on Natura 2000 or SSSI sites from this site. Although there are no priority habitats on site, great crested newt are known from surveys carried out in 2012 to be present within Potgate Quarry. The proposal site itself (based on aerial photos)</p>					0	0	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>comprises the base of a worked quarry (rock), so biodiversity interest will be minimal, though dust might drift onto adjacent plantation woodland while noise may also have an impact below the level of significance. Not significant.</p> <p>Plan level / regional / wider effects. There are unlikely to be any effects on Natura 2000 or SSSI sites from this site in the wider area.</p>							
2. To enhance or maintain water quality and improve efficiency of water use	<p>Proximity of water quality / quantity receptors. Nitrate Vulnerable Zone (NVZ): the site is in a groundwater NVZ and surface water NVZ. Source Protection Zone (SPZ): there are none on site or adjacent; River Basin Management Plan (RBMP): Humber RBMD – the site is in 'Ure from Thornton Steward Beck to River Skell' waterbody catchment (overall moderate quality / objective: good by 2027). Groundwater objective 'good by 2015'.</p> <p>Catchment Abstraction Management Strategy (CAMS): Surface water resource available at least 50% of the time (Q95=red).</p> <p>Local effects. While there may be a risk from fuel spills and possible leachate there are no major receptors to which there is clear connectivity (nonetheless such incidents could contaminate groundwater and other minor water bodies). This is expected to be controlled by good site management.</p> <p>Plan level / regional / wider effects. None noted.</p>				0	0	0	
3. To reduce transport miles and associated emissions	<p>Proximity of transport receptors. The site is 7.7km from junction 50 on the A1. Access: existing Potgate Quarry access is via Water Lane (bridleway) onto A6108 approximately 100m south of North Stainley village. Heavy Goods Vehicles (HGVs): 5; Light Vehicles: None.</p> <p>Net change in daily two-way trip generations: Light vehicles: none; HGVs: five additional two-way</p>		✓	✓	✓	-	-	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
from transport and encourage the use of sustainable modes of transportation	<p>movements.</p> <p>Public Right of Way (PRoW): Site access will lead onto a bridleway.</p> <p>Rail: None within 5km.</p> <p>Local effects. Traffic modelling in the traffic assessment predicts that HGV numbers are low and as other quarries use this road all HGVs are required to turn right to the junction with the A6108. Traffic impacts are not, therefore, significant. However, there is a possible very minor conflict with bridleway users which may need some additional consideration at the planning application stage.</p> <p>Plan level / regional / wider effects. None noted.</p>							
4. To protect and improve air quality	<p>Proximity of air quality receptors. Site is not within a Hazardous Substance Consent Site or an Air Quality Management Area (AQMA).</p> <p>Local effects. Dust from site could affect Potgate Farm (circa 40m south-west), New Zealand Farm (590m south-west), though prevailing winds are westerly. Other receptors are more distant or screened by trees or intervening topography.</p> <p>Plan level / regional / wider effects. None noted.</p>		✓	✓		-	-	0
5. To use soil and land efficiently and safeguard or enhance	<p>Proximity of soil and land receptors. Agricultural Land Classification (ALC): Grade 3; Contaminated land: Site is on quarry floor so land contamination is unlikely. Gypsum dissolution area: Site not in a gypsum dissolution area. Site does not lie within or adjacent to a Coal Authority development high risk area. Site is listed in Abandoned Mines Catalogue (NE969 and NE970).</p> <p>Local effects. Although on ALC Grade 3 land, this site already is a former quarry (so brownfield), there is an approved restoration scheme for the quarry.</p>					0	0	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
their quality	<u>Plan level / regional / wider effects.</u> None noted.							
6. Reduce the causes of climate change	<p><u>Proximity of factors relevant to exacerbating climate change.</u> No high carbon habitats on site.</p> <p><u>Local effects.</u> See wider effects below.</p> <p><u>Plan level / regional / wider effects.</u> This site involves low number of vehicles, and while reasonably accessible to the A1, it would generate a small, though not significant, amount of carbon over time. The site would also recycle inert construction and demolition waste, which is expected to be positive for climate change as ultimately it will reduce the embodied energy of construction materials. On balance, minor positive.</p>	✓	✓		✓	+	+	0
7. To respond and adapt to the effects of climate change	<p><u>Proximity of factors relevant to the adaptive capacity³⁶ of a site.</u> Site is in Flood Zone 1. About 5% of this is site in areas subject to surface water flooding (low to high risk). No ecological networks affect the site. CAMS: Surface water resource available at least 50% of the time (Q95=red).</p> <p><u>Local effects.</u> Climate change would not affect the site in the latter part of the plan period. Climate change effects on surface water flooding are likely to increase the extents of the areas at risk and also the depth of flooding for each event respectively.</p> <p><u>Plan level / regional / wider effects.</u> None noted.</p>					0	0	0

³⁶ Adaptive capacity is defined as the ability of a system to adjust to climate change to moderate potential; damage or take advantage of opportunities (adapted from CARE International, 2015. Adaptive Capacity [URL: http://www.careclimatechange.org/tk/integration/en/key_concepts/adaptive_capacity.html]

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
8. To minimise the use of resources and encourage their re-use and safeguarding	<p><u>Proximity of factors relevant to the resource usage of a site.</u> No spatial factors identified.</p> <p><u>Local effects.</u> This site will recycle construction and demolition waste and handle secondary aggregate which will ultimately reduce resource usage. If higher value products are simply used in quarry restoration however this effect will be lessened.</p> <p><u>Plan level / regional / wider effects.</u> None noted.</p>	✓			✓	m +	m +	0
9. To minimise waste generation and prioritise management of waste as high up the waste hierarchy as practicable	<p><u>Proximity of factors relevant to managing waste higher up the waste hierarchy.</u> No spatial factors identified.</p> <p><u>Local effects.</u> This site will recycle construction and demolition waste and handle secondary aggregate which will reduce waste.</p> <p><u>Plan level / regional / wider effects.</u> None noted.</p>	✓		✓		m +	m +	0
10. To conserve or enhance the historic environment	<p><u>Proximity of historic environment receptors.</u> Conservation Areas: None within 1km; Registered Parks and Gardens: None within 2km - Hack Fall (Grade I) is 3.8km north-west, Norton Conyers (Grade II) is 3.3km east; Studley Royal (Grade I) is 3.7km south; Registered Battlefields: None within 5km; World Heritage sites: Studley Royal Park including the ruins of Fountains Abbey is 5.2km south (not within buffer zone); Scheduled Monuments: one within 2km – Castle Dikes</p>					0	0	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
and its setting, cultural heritage and character	<p>defended Roman Villa; Listed buildings: None within 1km.</p> <p>Named Designed Landscapes (within 2km): Unnamed designed landscape 1.4km north-west, unnamed designed landscape 1.5km north, North Stainley Hall 930m north-east, Azerley Chase 1.7km south-west. Former Azerley Park 1.9km south-west.</p> <p>HLC Broad type – Settlement; HLC Type – Farm complex. The proposed materials recycling facility lies within an area of existing development as a pig farm. Within the surrounding area, the undesignated archaeological interest includes areas of prehistoric settlement and activity. Archaeological recording has been undertaken in response to previous extensions to Potgate Quarry and this has recovered archaeological evidence.</p> <p>Local effects. The HLC type of this area is farm complex. The allocation site is the entirety of this character type. It is assumed that within the allocation site the HLC has already become invisible as the development has replaced an earlier field system. Accordingly, the use of the site for the proposed purposes is assumed to have no overall impact on HLC.</p> <p>Although there would be the potential for irreversible loss of archaeology in this area, the site is on the quarry floor so this effect would not occur. The site is also not likely to affect the setting of any historic features significantly.</p> <p>Plan level / regional / wider effects. None noted.</p>							
11. To protect and enhance the quality and character of	<p>Proximity of landscape / townscape receptors and summary of character. National Park: Yorkshire Dales is 19.3km west; Area of Outstanding Natural Beauty (AONB): Nidderdale is 530m west; ITE: None within 2km; District Level Landscape Designation: None within 2km.</p> <p>National Character Area (NCA): 30 - Southern Magnesian Limestone; North Yorkshire and York Landscape Character Assessment (LCA): 06 - Magnesian Limestone Ridge (moderate to high</p>		✓	✓		-	-	?

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
landscapes and townscapes	<p>visual sensitivity, high ecological sensitivity and high landscape and cultural sensitivity); District LCA: 77 - North Ripon Farmland in Harrogate LCA; Green Belt: No.</p> <p>Urban Intrusion: The site is in an area classed as disturbed and the existing quarry and the Lightwater Valley theme park/shopping attraction lie to the south and detract from the experience of tranquillity. Light pollution: the site ranges from 0.5 to 1 NanoWatts/ cm²/ sr³⁷..</p> <p><u>Local effects.</u> The site is close to the Nidderdale AONB and views and potential noise disturbance would need to be assessed. The area to the west, between the site and the AONB boundary which currently has planning permission for mineral extraction will not in fact be quarried due to the quality or quantity of the mineral, and will remain in agricultural use.</p> <p>The site is brownfield land on the quarry floor so it could be accommodated as a temporary use. However there is an approved low level restoration scheme for Potgate Quarry which is being implemented in phases. The proposed new use will be a mixture of nature conservation and grazing, with some public access in the long term. Secondary aggregates recycling would be visually intrusive and out of place in the restored landscape.</p> <p>The site is relatively low in the landscape (being on the quarry floor) and generally screened by topography and vegetation in views from local roads (although this would need to be checked). However, viewpoints in the area tend to be higher than this site, so the site may be visible from some locations. There would also be views from the diverted right of way which follows the northern boundary of Potgate Quarry.</p> <p><u>Plan level / regional / wider effects.</u> The site may have visual impacts on the AONB (see above).</p>							

³⁷ Light pollution and dark skies are measured on a scale <0.25 (darkest) to >32(brightest) NanoWatts/ cm²/ sr. CPRE, 2015; England's Light Pollution and Dark Skies – Interactive Map. Available at <http://www.cpre.org.uk/>. Accessed September 2016.

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
12. Achieve sustainable economic growth and create and support jobs	<p><u>Proximity of factors relevant to sustainable economic growth.</u> The site is 7.7km from junction 50 on the A1 and 4.8 miles north of Ripon, so has reasonable access to key markets (and is quite close to Ripon).</p> <p><u>Local effects.</u> Recycling construction and demolition waste will add value to what would otherwise have been a waste product (and will save landfill tax). However, if this waste is simply used in quarry restoration the effect will be considerably lessened, though may save bringing in virgin material for restoration.</p> <p><u>Plan level / regional / wider effects.</u> See local effects above.</p>	✓		✓		m +	m +	0
13. Maintain and enhance the viability and vitality of local communities	<p><u>Proximity of factors relevant to community vitality / viability.</u> Indices of Multiple Deprivation (IMD) area is Kirkby Malzeard, not in the most deprived 20%; Nearest settlement is North Stainley (1.5km north-east), Ripon is 4.8 miles south.</p> <p><u>Local effects.</u> Traffic is at a low level so unlikely to significantly affect community vitality, and jobs are likely to be minimal. No significant effect.</p> <p><u>Plan level / regional / wider effects.</u> None noted.</p>					0	0	0
14. To provide opportunities to enable recreation, leisure and learning	<p><u>Proximity to recreation, leisure and learning receptors.</u> PRoW: Bridleway 15.102/9/1 lies 280m north. Bridleway 15.102/10/2 runs 120m south. Common Land: None within 500m; Registered Village Greens: None within 500m.</p> <p><u>Local effects.</u> There is a possible minor conflict with bridleway users from low levels of traffic. This effect would be cumulative with MJP10, though this site's contribution would be minimal.</p> <p><u>Plan level / regional / wider effects.</u> None noted.</p>		✓	✓		-	-	0

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
15. To protect and improve the wellbeing, health and safety of local communities	<p><u>Proximity to population / community receptors / factors relevant to health and wellbeing.</u> No on-site National Grid infrastructure (e.g. pipelines). No schools or hospitals within 1km (nearest school 1.7km north-east). Lightwater Valley is 550m east.</p> <p><u>Local effects.</u> Dust and noise from site could affect Potgate and New Zealand Farms and possibly Musterfield, though all are to the west of the site (against prevailing winds), and all apart from Potgate farm are reasonably distant (i.e. over 500m) so effects would be low level. Other receptors are more distant or screened by trees or intervening topography. The very small cumulative effect of traffic with MJP10 would have a negligible effect on health.</p> <p><u>Plan level / regional / wider effects.</u> None noted.</p>		✓	✓		-	-	0
16. To minimise flood risk and reduce the impact of flooding	<p><u>Proximity to flood zones.</u> Site is in Flood Zone 1. About 5% of this is site in areas subject to surface water flooding (low to high risk).</p> <p>Most of the site lies in a 1km square where <25% of the km square is susceptible to Clearwater groundwater flooding. The eastern part of the site is in a km square where groundwater flooding susceptibility information is not available.</p> <p>A nearby extension to the same quarry reports that “there are no obvious points of groundwater ingress in the quarry excavations and most of the joint surfaces show little or no evidence of solution despite some karstic features in the wider local area”³⁸. A borehole on this site was dry to 12.19m below ground level so much depends on the depth of extraction.</p>		✓	✓		-	-	-

³⁸ Lightwater Quarries. 2012. Potgate Quarry: Planning Application for an extension to the existing mineral workings with restoration to nature conservation habitats: Environmental Statement prepared by David L Walker Ltd [URL <https://onlineplanningregister.northyorks.gov.uk/register/PlanAppDisp.aspx?recno=8602>]

Sustainability Objective	Key Observations on Significance					Score		
		P	T	D	I	S	M	L
	<p>This site is not at risk from the 1:20 (5%) flood event.</p> <p>Local effects. SFRA Sequential Test undertaken for the site concluded that this site would 'Pass'. A site specific flood risk assessment would need to further examine risk of groundwater flooding.</p> <p>Plan level / regional / wider effects. None noted.</p>							
17. To address the needs of a changing population in a sustainable and inclusive manner	<p>Proximity to factors relevant to the needs of a changing population. The site does not conflict with any known allocations in other plans.</p> <p>Local effects. The site could make a contribution to the supply of aggregates and other building product for the Joint Plan Area and beyond (if it is concerned with construction / demolition waste recycling) which may support the housing and employment markets. However, much depends on whether and how much of the recycled waste / secondary aggregate is used in quarry restoration.</p> <p>Plan level / regional / wider effects. As local effects above.</p>		✓		✓	+	+	0
Cumulative / Synergistic effects³⁹								
Planning context	North Stainley is 1.5km north east. North Stainley is a Group C settlement in Harrogate. These settlements will accommodate only very limited growth mainly in the form of sustainable development within their existing built up areas. Although Harrogate has not yet developed new development sites, the 2001 Local Plan shows a North Stainley to be largely confined to its settlement boundaries.							
Other Minerals and Waste Joint Plan Sites	MWJP sites within 5km: MJP10 Potgate Quarry is 600m north, MJP14 Ripon Quarry is 2.6km east.							

³⁹ Cumulative effects have been factored into the scoring of each SA objective in the assessment framework.

Historic minerals and waste sites	Further extraction around Potgate quarry has taken place historically. Sutton Grange mineral extraction site was granted during the 1940s and lies 1.3km south. Ripon Quarry (granted in the 2000s) and still active lies 1.3km northeast.
Traffic Impacts	There are possible cumulative effects on transport and air quality with other sites, but this site's contribution would be very low
Limitations / data gaps	
No significant data gaps. More detailed assessment may be required to fully evaluate a number of effects however. This should be addressed at any subsequent planning application stage.	
Mitigation requirements identified through Site Assessment process	
<ul style="list-style-type: none"> • Design to mitigate impact on ecological issues, in particular with regard to avoiding impacts on protected species. • Design to include landscaping to mitigate impact on local landscape features, local residents and users of rights of way • Design to include suitable flood risk assessment; for an FRA to be satisfactory, it will need to include necessary mitigation, such as compensatory storage, attenuation and SuDS as appropriate • Design to include suitable arrangements for public rights of way (diversion or retention, and associated mitigation, as appropriate) including along Water Lane. • Design to include suitable arrangements for access and local roads • Appropriate arrangements for control of and mitigation of the effects of noise, dust, etc. • Appropriate restoration scheme integrating with existing Potgate quarry scheme and using opportunities for habitat creation. 	