

APPENDIX 5:

DETAILED SITE ASSESSMENTS, IDENTIFICATION OF SIGNIFICANT IMPACTS & MITIGATION PROPOSALS

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SITES IDENTIFIED IN POLICY SAP1 FOR HOUSEHOLD WASTE RECYCLING CENTRES**AL37 – Lillyhall Industrial Estate – replacement for Clay Flatts Household Waste Recycling Centre – 1.3ha within a 2ha site**

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable/very or quite likely/limited likelihood/no effect/depends on use	Explain the nature/scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	?	?	?	Adverse impact quite likely	Site is a replacement for two under-equipped sites, one in Workington and one to the east of Whitehaven. However, it is more distant from both of the existing facilities and this is likely to be a disincentive to use it even if retaining the existing sites could also have a detrimental effect on recycling rates in the near future. Even if usage rates are maintained, it would appear to result in an increase in "waste miles" which appears to conflict with Strategic Policy SP2 (while recognising, also, that Strategic Objective 3 requires waste to be managed "as near as practicable" to its source).	-
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	✓	✓	✓	Quite likely	The existing sites appear to be relatively close to residential areas and, therefore, this allocation would appear to be an appropriate land use within an industrial estate (that includes the existing MRF). Provided there is appropriate mitigation, the net impact should be positive when the removal of any adverse impacts from the existing sites is taken into account. (Impacts on non-human receptors are considered in assessing against policy EN1).	+(+)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport	?	?	?	Limited likelihood	There may be a marginal benefit if the existing HWRCs are relatively close to recreational facilities and the removal of the capacity to an industrial location would end any impacts. The lack of impacts on other criteria suggests the overall assessment should be implicitly positive.	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable/very or quite likely/limited likelihood/no effect/depends on use	Explain the nature/scale for each impact as necessary	
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 	√	√	√	Limited likelihood	The site is currently unoccupied (and assumed to be brownfield) with a belt of trees along the north western and south western edges. A small stream appears to run beneath the trees and its biodiversity value is unclear. The site is close to various biodiversity designations and there are areas nearby known to be used by species affording varying levels of protection, but other locations on the wider estate may prove more appropriate habitat for these species. Prior to the granting of planning permission in 2013, survey information established that there was no 'reasonable likelihood' of Great Crested Newts being present on site or in the vicinity. The size of the plot allows retention of the tree belts, which would also provide some screening.	+
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 	√	√	√	Limited impact very likely	The site is distant from any heritage designations and would be an appropriate land use alongside the existing occupants. Previous assessment notes that the site is visible from high ground to the east; however, the visual impact will be limited by surrounding buildings and because the intended use is largely open with only low-level structures.	++
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	√	√	√	Limited impact very likely	<p>No impact on heritage assets (noting this is not a mineral site).</p> <p>Site is in lowest flood risk zone. However, it is currently grassed over and laying concrete areas to house the HWRC would increase run-off, which have been taken into account in the drainage design for the site and in protecting water quality in the stream along the western edge of the site.</p> <p>HWRC use is unlikely to give rise to significant dust, light and other impacts <u>provided</u> best practice mitigation is used to limit the risks of them occurring and assuming there is less risk of impact to sensitive receptors than at the two sites that this facility will replace.</p> <p>Effect on the urban environment is neutral as this is a vacant plot within an industrial area.</p>	++

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable/very or quite likely/limited likelihood/no effect/depends on use	Explain the nature/scale for each impact as necessary	
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors	√	√	√	Very likely	The impact is judged as moderately adverse because the existing HWRCs are closer to potential sources of waste in Workington, Whitehaven and nearby settlements. Relocating HWRC capacity to this site could have two impacts: <ul style="list-style-type: none"> Increased trip lengths and resulting emissions if usage rates are maintained Reduced use leading to stagnation and possible reduction of recycling performance that could lead to more waste going to landfill with resulting impacts on methane generation. The site is co-located with an MRF and a physical treatment facility that could offer two offsetting benefits: <ul style="list-style-type: none"> Materials suitable for treatment would only have to be moved to an adjacent plot, rather than brought by road from the existing sites Recyclables separated in the HWRC could be bulked with those from the MRF into larger loads for dispatch to distant reprocessing facilities, which should be a better outcome than separate, smaller loads sent from three facilities. However, the overall impact is assessed as likely to be moderately adverse.	(+)/-
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water	√	√	√	Quite to very unlikely	The main requirement is to protect the quality of the stream flowing along the western edge of the site (recognising its existing biochemical quality is not known). Other surrounding open water bodies could be adequately protected from dust and other material blown off the site by using mitigation measures normally used for this type of facility. See also comments in the assessment against EN3.	++
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat	?	?	?	Very unlikely	Site is likely to have been contaminated by previous use, but to an unknown extent. The HWRC should not require piling and, therefore, laying a concrete apron would limit percolation of rainwater and further risk of contaminants entering groundwater. This is a brownfield site with no recent agricultural use.	+(+)
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to	√	√	√	Very likely	HWRCs promote recycling of domestic and some commercial/industrial wastes so make an obvious contribution to sustainable waste management while also providing a modest source of materials that can be crushed into secondary aggregate. The assessment is positive based on this principle; however, previous comments about the increased distance of the HWRC from waste sources	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable/very or quite likely/limited likelihood/no effect/depends on use	Explain the nature/scale for each impact as necessary	
	meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working					suggest this might affect recycling rates, cancelling some of the benefit.	
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√	√	Inevitable if developed	The increased throughput of this facility compared to the two HWRCs being replaced, will retain 4 existing full-time employees. It is unlikely to create new employment opportunities.	o
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need	√	√	√	Inevitable if developed	Same as above.	o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No effect	Replaces existing facilities so there is no obvious benefit (while recognising replacement would enable a wider range of materials to be accepted, though this is not regarded as innovation or diversification). Previous consultation responses on allocation AL8 raised concerns about waste uses on the site deterring investment and occupancy of the wider estate. While the concerns are recognised they would appear more palpable if no waste use existed already.	o
Summary of Assessment							
The allocation is an appropriate location for an HWRC, in terms of possible conflicts with adjacent land uses, and would add to the existing cluster of waste facilities at this location. The size of the plot suggests that there is scope to design it to provide sufficient capacity and range of facilities to meet the anticipated need, while also retaining some of the habitat (tree belts), if this provides a wildlife refuge within the industrial estate. Any impacts on sensitive receptors (human and natural) appear to be limited, but would need further survey to confirm specific issues. However, the main adverse impact of this site is that it relocates recycling facilities largely for domestic use to a suitable site some distance from waste sources, and this is expected to impact on residents' willingness to travel greater distances to use it. Any benefits from providing more and broader capacity could be offset by a reduction in use compared to the two HWRCs it would replace, and this may impact recycling rates. It is also likely to result in an increase in 'waste miles'.							

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SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable/very or quite likely/limited likelihood/no effect/depends on use	Explain the nature/scale for each impact as necessary	
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: the possible reduction in recycling rates referred to above is most likely to mean wastes being diverted from the HWRCs to residual waste deposited in landfill and which would generate greenhouse gases.</p> <p>Cumulative; the HWRC would add to impacts from existing waste (and other industrial) activities on the estate, such as traffic effects. However there are positive aspects of co-location which are referred to below.</p> <p>Synergistic: co-location of the site with other recycling and waste treatment plants may bring some minor benefit if material managed in these facilities is currently brought to Lillyhall by road from the existing HWRCs. There is also scope to bulk separated recyclates from the HWRC with those from the MRF which could reduce waste miles and emissions arising from moving these materials to reprocessing facilities elsewhere.</p>							
Mitigation Proposed							
<p>It would be prudent to refer to the need to address the following measures in the description of the allocated site though most were evaluated at the planning application stage:</p> <ul style="list-style-type: none"> Dust, odours, etc. – should only require standard measures to limit impacts on surrounding land uses. Ecology – Phase 1 habitat survey to assess wildlife use of site and scope for (and value in) retaining trees on the site; will also require protected species, invertebrate and reptile surveys. Contamination – it may be appropriate to require a Stage 1 desk survey of land contamination (i.e. focusing on previous land uses and likely sources and types of contamination). 							
Additional Comment							
<p>The site is reached via access roads leading off the A595. This should provide capacity for overflow of queuing vehicles in the event of high usage levels of the site (notwithstanding the comments above). This is most likely to occur at weekends and on public holidays when any impact on vehicles accessing other plots in the estate should be limited.</p> <p>The existing Household Waste Recycling Centre cannot, under the terms of the municipal waste contract, close until the replacement sites are built and ready to operate; otherwise, targets for recycling and diversion of waste from landfill could not be met.</p>							

SL1B – Kendal Fell Quarry – replacement for Canal Head Household Waste Recycling Centre – area of site not identified at present

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Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable/very or quite likely/limited likelihood/no effect/depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable/very or quite likely/limited likelihood/no effect/depends on use	Explain the nature / scale for each impact as necessary	
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	√	√	√	Quite likely	Site is proposed as a replacement for the existing Canal Head HWRC to facilitate regeneration of that area. It could be regarded as less accessible than the existing site as it is peripheral but this comparison only applies to local residents and does not take account of the impact of traffic generated by the site on congestion in the town. The positive score also acknowledges the site is probably more accessible for people living outside the town for which it is the nearest HWRC. See also comments in the assessment against Objective EN3.	+
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	√	√	√	Probably inevitable	The existing site occupies a hemmed-in plot that is accessed by streets passing through an area of mixed residential and commercial properties which experience some impacts as a result. The current site is too small for the current operations. The proposed site lies adjacent to the currently inactive Kendal Fell Quarry. It will generate new traffic (and associated) impacts affecting properties on Greenside while alleviating impacts in the streets around the existing site. There is a public footpath down the east side of the quarry which shares the narrow access road that would serve the site and this has implications for pedestrian safety. Collectively these issues mean the site can only be given a mildly positive assessment against this objective. There are two large residential properties about 100m south of the likely entrance to the site. However one of the industrial units which has an open storage area adjacent is likely to have a more direct impact on these houses.	(+)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact	The site lies between a currently inactive quarry and a light industrial estate. It is not evident there are recreational facilities or built heritage assets in the vicinity that would be adversely affected. See also comments referring to Objectives EN3 and SP5 above.	++

Assessment framework		Permanence			Characteristics of impacts		
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		0-5 yrs	6-15 yrs	>15 yrs	Inevitable/very or quite likely/limited likelihood/no effect/depends on use	Explain the nature / scale for each impact as necessary	
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 	?	?	?	Limited likelihood	The proposed use should offer limited risk of impact on adjacent biodiversity and earth heritage features. The site itself is derelict land (former weighbridge) between an inactive quarry and light industrial estate - it is not clear what specific ecological value it offers, nor is it clear that its open aspect means it is valuable as a wildlife refuge or foraging area given there is open farmland nearby, on three sides.	++
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 	√	√	√	Inevitable	The site abuts the National Park boundary and is in a relatively open and elevated rural location though there is some vegetation screening on all sides. The HWRC would only require a low-level structure for offices which would have a lower elevation than the industrial buildings on the site access road. However, it will increase road traffic and other impacts from activities within the site.	-
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	√	√	√	Highly likely if developed	<p>Balance of impact on the urban environment is very positive since the existing site is in a cramped location accessed through residential streets, part of which is a Conservation Area. As such the existing HWRC is not compatible with its surroundings (see also comments against objective NR1) and therefore any adverse impacts referred to against the previous objective would be offset by improvements to the urban environment.</p> <p>The site is not at risk from flooding though it will require laying of concrete path that will alter percolation rates and run-off patterns which will need to be addressed in the drainage design.</p> <p>The site has the potential to increase adverse impacts in an edge of town environment offsetting the benefit of removing them from the current location. Specific mitigation would be needed to deal with dust, litter and odour risks associated with this type of facility. Overall the assessment is judged to be mildly positive although it might be considered adverse if there was an alternative replacement site was available within the town boundary and not too close to housing.</p>	+/(-)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient 	√	√	√	Likely but varies with location	Re-locating the HWRC is most likely to transfer impacts from one locality to another and the assessment turns on whether the immediate surroundings of either site are more capable of accommodating any residual impacts that cannot be mitigated effectively. Overall the site is assessed as positive against this impact as the existing site will generate air quality impacts in fairly confined urban streets where pollutants may be slow to disperse. Similar considerations apply to odours from the existing HWRC in a residential area. The edge of town location of the new site implies it is less sustainable than the existing site because journeys will be lengthened, however the existing	+/(-)

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		0-5 yrs	6-15 yrs	>15 yrs	Inevitable/very or quite likely/limited likelihood/no effect/depends on use	Explain the nature / scale for each impact as necessary	
	technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors					site has to be accessed through the congested urban road network and this will have air quality impacts that will not arise (at least to the same extent) as at the new site. On balance the assessment is therefore mildly positive.	
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water	?	?	?	Very limited effect	Base maps show a stream to the south of the site which may be a field drain, but potential impacts could be addressed with standard mitigation measures used for this type of facility. Site drainage measures will need to prevent pollution by materials washed off the site in solution as there is a groundwater extraction permit close to the site and pastoral land nearby.	0
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat	?	?	?	Very limited effect	Very limited risk of adverse impact as this is a brownfield site. The main risk is potential impact on soil quality on nearby agricultural land as a result of material being washed or blown off the site though this should also be addressed through industry standard mitigation measures	0
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate - Support use of co-products from minerals working				No impact	The site would relocate an existing facility and although there may be scope to increase throughput it would not alter its position in the Waste Hierarchy.	0



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EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment				No impact	Re-location of an existing facility would not appear to create new jobs unless its size is expanded substantially.	0
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact	As above	0
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		0
Summary of Assessment							
There is a need to move the existing HWRC in the town centre, where it impacts on a range of properties including those in a Conservation Area, to a peripheral location on a brownfield site; this has been designated as employment land and proposed for a range of waste management uses. In addition, the current site is too small for current operations. Development of the site would shift impacts from an urban to a rural location, resulting in reduced adverse effects on human receptors. While mitigation measures can be used to address the typical impacts associated with an HWRC, development of the site will introduce impacts of noise, odour, increased traffic, dust and emissions to a relatively tranquil rural location (recognising the fact that light industrial units adjacent to the site will generate some of these impacts already). One of the principal benefits would be an incremental contribution to reducing emissions and congestion on roads in the town, while recognising that the site will increase traffic on the road from the town centre. Given the apparent lack of alternative sites within the urban area, this site may have to be developed to relieve the problems associated with the existing HWRC.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified. Cumulative: most likely to be traffic, dust and noise impacts adding to those generated by the light industrial units immediately to the south of the site. Synergistic: none identified.							

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Mitigation Proposed							
<p>Standard mitigation measures used for this type of facility (netting, damping down paved/concrete areas during dry weather, surface drainage management with filter traps) should deal with the main generic impacts. Some additional screening along the western edge of the site might be considered to limit visual impact from the National Park although the site lies alongside an inactive quarry in the Park which could also be considered unsightly. The junction of the access road with Underbarrow Road may need to be re-designed and measures will be need to protect any pedestrians using the public footpath which runs alongside the access road which is paved but narrow and which is assumed to carry very little traffic at present.</p> <p>As the site is currently unused it would be prudent to require an ecological survey to check for wildlife use or occupancy of the site. The site is sufficiently large (estimated to be 2ha.) that space will be available for ecological mitigation and/or habitat creation which, ideally could provide additional visual screening.</p>							
Additional Comment							
The existing Household Waste Recycling Centre cannot, under the terms of the municipal waste contract, close until the replacement sites are built and ready to operate; otherwise, targets for recycling and diversion of waste from landfill could not be met.							

SITES IDENTIFIED IN POLICY SAP2 FOR WASTE TREATMENT AND MANAGEMENT FACILITIES**AL3 – Oldside, Workington –waste treatment and management facility – approx. 9ha**

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SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No effect	Any impact would occur as a result of involvement in the determination process	0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	The site is fairly centrally located in the town and well located to serve a wider catchment of the other coastal towns and possibly settlements inland within the National Park. Southern boundary of the site is approx. 200m from docks which also contains a railhead; the railway line passes the eastern boundary of the site	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No effect		0
SP4: To improve the level of skills, education and training	-Education and training				No effect		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	✓	✓	✓	Limited likelihood	Noise, dust & vibration: site on existing mixed industrial area and proposed use is likely to be indoors. Access from the wider catchment of the facility is assumed to use existing haul routes so may result in incremental increase in these impacts (and if the site has a wide catchment the impact further afield cannot be assessed at this time). Receptors: site is some distance from housing (350m) and is an appropriate site for this type of use. There is a primary school on the north side of the roundabout A597/A66 junction though previous assessment identifies junction improvements may be necessary and the issues for pedestrian and road safety would need to be addressed at determination. (See also comments under SP6)	+

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SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	<ul style="list-style-type: none"> -community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport 	√			Limited likelihood	<p>Heritage: site has some industrial archaeology interest though this would probably require survey/excavation in the short-term as re-development of the site would result in permanent loss of any assets</p> <p>Culture/recreation: land immediately north contains recreational facilities and a caravan park though it is not evident whether development would have an adverse impact. There are also public footpaths to the west and east of the site and cycle routes along the southern boundary, and there may be some adverse actual or perceived adverse impact if the site is brought back into use.</p> <p>Collectively these factors, though difficult to assess clearly suggest a very mild potential adverse impact without mitigation</p>	(-) 
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 	√	?	?	Depends on use	<p>Development of the entire site for waste use may remove habitat used by the Small Blue butterfly though there may be scope for off-site mitigation on adjacent land. There are a SSSI and LNR ca. 400m to the northeast of the site though they appear to include different habitat; the intervening A597 limits the scope to incorporate a wildlife corridor. Similarly, with the port area to the south, it appears that the site may not be part of an existing corridor.</p> <p>Impacts on the River Derwent and Bassenthwaite Lake SAC are addressed in assessing against Objective NR2</p>	-
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 				No impact	No adverse impact as the site is located in an industrial area and is most likely to house structures similar to those around it. Therefore it should not look out of place when viewed from inland or offshore (though note comments under Secondary impacts in the summary below)	0
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriate development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	?	?	?	Limited likelihood	<p>Heritage: impacts have been assessed under objective SP6</p> <p>Flood risk: site in lowest flood risk zone and therefore beneficial in that it avoids use of the sequential test</p> <p>Noise, dust, etc.: impacts have been assessed under objective SP5</p> <p>Light: appears unlikely the site would increase light pollution and any necessary controls would be implemented with planning conditions once the waste use has been established</p> <p>Urban area: impact neutral if it is accepted this would regenerate a derelict brownfield site to appropriate alternative use and would not result in loss of open space</p>	(+) 

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Depends on use	<p>Dust: impact depends on waste use and whether there is external storage of received materials or those to be despatched</p> <p>Sustainable transport: as noted under SP2 there is scope for modal shift though this depends on whether there are waste sources or processing facilities at the other end of the connections. Equally the waste facilities in the county will serve more than just the local community as they are dispersed and avoid locations in the National Park. This may result in more emissions than a denser pattern of facilities though that outcome would result in other adverse impacts. The net impacts are therefore difficult to assess. Nevertheless the site is proposed for a treatment facility that contributes to landfill diversion and therefore should reduce generation of methane.</p>	(+)
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 	?	?	?	Limited likelihood	<p>HRA and previous SA assessment identifies the possible risk of contamination of the mouth of the River Derwent during construction and operation. The southern edge of the site is ca. 200m from the river and there are other industrial structures in the intervening space, so it is difficult to see that contamination by overland flow of run-off represents a risk given the distance from the river. Any potential risk could also be assessed when a planning application is submitted</p>	?
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 	√			Inevitable (if site is re-developed)	<p>Former use almost certainly means this will be contaminated land that will need to be remediated prior to re-development. While this is beneficial the additional costs will affect its valuation and therefore the incentive to bring it back into use. The previous SA assessment also refers to possible contamination arising from seepage of landfill gas from an adjacent site that may also need to be addressed, Brownfield site, so no loss of good quality agricultural land is entailed</p>	+
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary 	√	√	√	Inevitable (if site is re-developed for the intended purpose)	<p>Intended purpose will contribute to landfill diversion capability. Waste use should be prioritised for recycling or composting to move management higher up the Waste Hierarchy than treatment, though the site is big enough to accommodate both recycling and treatment (or reprocessing facilities) which would be particularly beneficial.</p>	++

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	aggregate rather than primary materials -Support the use of co-products from minerals working						
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√	√	Very likely	Site would be developed to provide capacity that does not exist in the county currently and therefore should create new technical and managerial jobs. However waste facilities are not large employment sites so the benefit is expected to be modest	+
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need	√	√	√	Very likely	Site has potential to contribute to job creation in an area of unemployment	+
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products	?	?	?	Limited likelihood	The site is likely to contribute to existing capacity in the county rather than diversify the range of facilities, and it would have little or no clear impact on the other criteria so it is not clear that there would be a significant impact	?
Summary of Assessment							
The site benefits from providing an opportunity to regenerate disused brownfield land for a use that does not clash with those on adjacent land and which is sufficiently distant from human receptors that any potential risks and impacts will be minimal. Proximity to Workington Port offers the scope for modal shift including possible export of recyclates (though it would be preferable if these materials could be reprocessed on another part of the site or on one of the other allocations in the town).							
Secondary, Cumulative & Synergistic Impacts							
Potential for cumulative impacts depends on how much of the site is re-developed for waste use. Its size suggests one or more sizeable facilities could be built. Further cumulative impacts would occur if it is developed alongside new waste facilities in the port (see assessment of site AL18). Either outcome will have an impact on cumulative levels of noise, dust, traffic and emissions that will primarily affect local road users but which could have some additional impact on adjoining recreational land uses. There is possible scope for secondary synergistic impacts as a result of wastes being brought to the site, treated or processed, and then exported through the port, contributing to traffic and sustaining its economic viability.							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Mitigation Proposed							
<p>The following measures appear prudent and would need to be implemented through the planning application process or in the description on the allocation in the Plan:</p> <ul style="list-style-type: none"> Traffic: review of impact on existing levels once type and scale of waste use is known. Road safety issues also need to be addressed as access to the site is likely to cross cycle and pedestrian routes. Dust, noise, etc.: again assess impact once type and scale of waste use is known. However proximity to biodiversity assets and recreational uses implies that the site should only be allocated for enclosed waste use (including storage of received materials and any to be moved off-site) unless there is evidence to show that none of these impacts would arise. Drainage: evaluation and appropriate mitigation (filter traps or similar) would need to be applied through the planning application process. Ecology: some of the site could be retained to support habitat for the Small Blue butterfly and this may be essential if there is no scope for habitat compensation on adjacent land. However this form of mitigation may limit the size of the facility on the land and/or the scope to co-locate complementary waste facilities on a single site. 							

AL8 – Lillyhall Industrial Estate – diversification of waste uses (without increase in land take) – area of between 2ha and 4.5ha within the existing 8ha site

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Quite likely	Expansion of the range of facilities would appear to be beneficial in providing additional options for managing wastes arising along the western and north western coastal fringe at a fairly centrally located site with good road access. There is limited scope for modal shift unless a handling facility is developed in Workington Port (possibly serving the railhead also) however the alternative would involve re-locating the existing uses to an alternative site where proximity to waste uses may result in new and greater adverse impacts.	+
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	√	√	√	Very likely	Several waste uses are already grouped on the site and mitigation measures will be in place to limit or prevent impacts on nearby sensitive receptors. The need for additional measures will depend on the new waste uses however the priority appears to be for enclosed facilities which would clearly limit the risks of certain impacts. Given the location, issues of well-being are primarily concerned with other development on the estate and are addressed in comments on Objectives EC1 to EC3.	++
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport	√	√	√	Very likely	The assessment is positive insofar as there are no recreational, cultural or heritage assets in the vicinity and therefore providing the additional facilities here could avoid development in other locations where such impacts might arise.	+
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources	√	√	√	Limited likelihood	The site is close to various biodiversity designations and there are areas nearby known to be used by species affording varying levels of protection but other locations on the wider estate may prove more appropriate habitat for these species. Unlike allocation AL37 the site is already occupied and the main issue is whether the additional activities would generate cumulative or new impacts, recognising that they would be limited if new uses are enclosed.	+
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity	√	√	√	Limited impact very likely	The site is distant from any heritage designations and would broaden the range of waste activities on the site within an existing industrial area. The site is visible from high ground to the east but visual impact should be limited given the existing surrounding uses and provided any new structures are not out of keeping (in terms of elevation particularly) with those already on the site and surrounding plots.	++
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of	√	√	√	Limited impact very likely	No impact on heritage assets (noting that this is not a mineral site). Site is in lowest flood risk zone. The priority is for new enclosed facilities that would limit the risk of external impacts when used in conjunction with the existing mitigation applied for this site. Provided new enclosed facilities are housed in structures similar in scale and	++

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area					design to those already on the estate there should be no visual degradation of the area, though perceptual issues are commented on in the assessments of objectives EC1 to EC3.	
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors	√	√	√	Very likely	Installation of enclosed facilities will limit new and cumulative dust and emissions impacts. Strategic Objective 3 requires waste to be managed as close as practicable to sources. Centralising facilities inevitably increases 'waste miles' compared to dispersing facilities to each main settlement but this could mean the sites handle so little local waste that they are not economically viable. It therefore seems sensible to seek to concentrate additional facilities on a fairly centrally located site where suitability for waste use is already established, recognising that the economic constraints referred to above mean some increase 'waste miles' is inevitable.	(+)
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water	√	√	√	Quite to very unlikely	New facilities would be enclosed and therefore it is expected that existing mitigation of such impacts would be sufficient (with reconfiguration possibly) as some of them address impacts of open waste management uses.	++
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat	√	√	√	Very unlikely	Site is likely to have been contaminated by previous use to an unknown extent. New structures may necessitate piling work and contamination impacts would need to be assessed beforehand and mitigated appropriately. This is a brownfield site with no recent agricultural use.	+(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate -Support use of co-products from minerals working 	√	√	√	Very likely	The expansion plans would appear to diversify waste management options which will contribute to improved resource efficiency and landfill diversion. It is assumed the priorities will reflect those stated in Strategic Policy SP4 (in turn reflecting the Waste Hierarchy) while at the same time addressing the county's identified waste management needs as stated in Strategic Policy SP3. The additional facilities include treatment plant though, ideally, capacity for re-use, recycling or re-processing (re-manufacture) of recyclates should be prioritised if they are feasible.	++
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 	?	?	?	Quite likely	Proposed expansion would appear to create new jobs though this is unlikely to be significant as most new waste technologies are largely automated. Concerns have been raised that further waste development on the site could prejudice occupancy rates and opportunities to attract new investment in the estate, which is important for the coastal fringe economy. The likelihood of such risks cannot be judged in this assessment but they would be significantly greater if the site was being proposed as new waste development rather than expansion of what is already there. Waste facilities will be judged inevitably as bad neighbours but the NPPW acknowledges they are a form of development that should be capable of sitting alongside other compatible industrial land uses. It is also unclear whether this previous response was a specific reaction to its potential suitability for an EfW facility or whether non-thermal treatment and other waste uses might be more acceptable.	(+)
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 	√	√	√	Quite likely	Any incremental growth in jobs appears to support the second criterion. The site is accessible by public transport.	+
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 	?	?	?	Unclear	See comments for Objective EC1.	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Summary of Assessment							
<p>This site offers several benefits in concentrating expanded existing or new waste management facilities on an existing site, for which the suitability for waste use is already proven. The current and possible future waste uses need to be centrally located (i.e. serving a potentially wide catchment) in order to be economically viable, and it has to be accepted that this will mean some wastes have to travel over some distance for management. This does not necessarily mean that the allocation is in conflict with Strategic Objectives and Policies in the Plan, especially if it delivers capacity that does not exist in the county now, and which means that wastes that are currently being exported (generating considerably more 'waste miles') can be managed locally. This outcome is also likely to deliver modest employment growth. The nature of future waste use is not explicit, and any development would require comprehensive assessment of the likely cumulative effects, alongside impacts from existing waste and non-waste uses on the wider estate. The location is a little distant from the main settlements in the coastal fringe and this limits the likelihood of impacts on various sensitive receptors.</p> <p>The NPPW makes clear that waste facilities are appropriate development alongside other industrial land uses provided they are mitigated satisfactorily and, in this case, recognising that wastes are already being managed on the site.</p>							
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: none identified.</p> <p>Cumulative: obvious potential for cumulative impacts from increased road traffic at the site and in the road network in the vicinity, and other generic impacts (odour, noise, dust, etc.) that accompany most waste management activities.</p> <p>Synergistic: impact will depend on the type of facilities that come forward. Co-location could mean some materials are recycled and treated on the same site, reducing waste miles, emissions and possibly the amount of waste landfilled.</p>							
Mitigation Proposed							
<p>The priority is likely to be to assess the suitability and efficacy of the existing mitigation measures (including issues such as drainage) and to determine whether additional ones are needed to deal with impacts arising from any new waste uses on the site. However this is likely to be addressed in seeking a new or varied Environmental Permit from the Environment Agency. It may also be prudent to require a Stage 1 contaminated land assessment if piling work will occur, and a walkover survey by an ecologist to check for any signs that the site is being used by protected species.</p>							

AL18 – Port of Workington –waste treatment and other facilities – area of between 2ha and 4.5ha within the 26ha port estate

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1:To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No effect	Any impact would occur as a result of involvement in the determination process	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	√	√	√	Inevitable	The site is centrally located in the town and well located to serve a wider catchment of the other coastal towns and possibly settlements inland within the National Park. The site contains the whole port estate which provides scope for economic use of space for vehicular access and manoeuvring, wharfage and a railhead	++
SP3: To provide everyone with a decent home	-To help meet local housing need				No effect		o
SP4: To improve the level of skills, education and training	-Education and training				No effect		o
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	√	√	√	Limited likelihood	Noise, dust & vibration: site on existing mixed industrial area and proposed use is likely to be indoors. Access from the potential catchment is assumed to use existing haul routes so may result in incremental increase in both impacts (though if the site has a wide catchment the impact further afield cannot be assessed at this time). Receptors: site is some distance from housing (>500m) and is an appropriate area for this type of use. There is a primary school on the north side of the roundabout A597/A66 junction though previous assessment identifies junction improvements may be necessary and the issues for pedestrian and road safety would need to be addressed at determination. (See also comments under SP6). The previous SA assessment notes it contains areas of brownfield land and it is assumed that occupation of one or more of them for waste use would not raise these impacts above levels experienced when the whole port estate was in use	+
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, dialect and sport	?	?	?	Impact unclear	Heritage: there is a Conservation Area over 300m from the port entrance; however waste facilities are unlikely to differ in scale or type from other structures on the port (which include sheds and storage tanks) so there is limited likelihood of any adverse impact on setting Culture/recreation: assessment of transport impacts may need to consider possible road safety impacts for cyclists using route across the north of the site	(?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 	√	?	?	Limited likelihood	<p>Parts of the site are reported to contain species-rich grassland supporting rare orchids and the Small Blue butterfly. Re-development could result in the loss of some of this habitat and further assessment is necessary of how much land could be lost with minimal biodiversity impact, and of the scope for habitat mitigation in the vicinity.</p> <p>Impacts on the River Derwent and Bassenthwaite Lake SAC are addressed in assessing against Objective NR2</p>	(-)
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 				No impact	No adverse impact as any waste facilities would be located in a sizeable industrial area, although it may be necessary to restrict the height of new structures so they are in keeping with what is in the port estate already	0
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	?	?	?	Limited likelihood	<p>Heritage: impacts have been assessed under objective SP6 but are unlikely</p> <p>Flood risk: site in lowest flood risk zone and therefore beneficial in that it avoids use of the sequential test</p> <p>Noise, dust, etc.: impacts have been assessed under objective SP5</p> <p>Light: appears unlikely the site would increase light pollution as it assumed there will be some night-time illumination of the port estate already for security purposes</p> <p>Urban area: impact neutral if it is accepted this would regenerate a derelict brownfield site to appropriate alternative use. It would not result in loss of public open space.</p>	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Depends on use	<p>Dust: impact depends on waste use and whether there is external storage of received materials or those to be despatched. As parts of the port estate are already used for aggregates storage this is less of a constraint than for site AL3.</p> <p>Sustainable transport: as noted under SP2 there is scope for modal shift though this depends on whether there are waste sources or processing facilities at the other end of the connections. Equally the waste facilities in the county will serve more than just the local community as they are dispersed and avoid locations in the National Park. This may result in more emissions than a denser pattern of facilities though that outcome would result in other adverse impacts. The net impacts are therefore difficult to assess. Nevertheless the site is proposed for a treatment facility that contributes to landfill diversion and therefore should reduce generation of methane.</p>	+
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 	?	?	?	Limited likelihood	HRA and previous SA assessment identifies the possible risk of contamination of the mouth of the River Derwent during construction and operation. This risk appears more palpable than for site AL3 but similar risks presumably apply to other land uses on the port. Any potential risk could be assessed when a planning application is submitted though it may be prudent to rule out open storage of materials received or those stored for despatch	?
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 	√			Inevitable (if site is re-developed)	<p>Former use almost certainly means this will be contaminated land that will need to be remediated prior to re-development. This may be less onerous than for site AL3 if it is supported by the landowner.</p> <p>A brownfield site so no loss of good quality agricultural land is entailed</p>	+
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as 	√	√	√	Inevitable (if site is re-developed for the intended purpose)	Intended purpose will contribute to landfill diversion capability. Waste use should be prioritised for recycling or composting to move management higher up the Waste Hierarchy than treatment though the wider site has several plots that could accommodate both recycling and treatment (or reprocessing facilities) which would be particularly beneficial.	++

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working						
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√	√	Very likely	Site would be developed to provide capacity that does not exist in the county currently and therefore should create new technical and managerial jobs. However waste facilities are not large employment sites so the benefit is expected to be modest. Nevertheless development could help to sustain the viability of the port either directly (stimulating port traffic) or indirectly (providing income for the land-owner)	++
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need	√	√	√	Quite likely	Site has potential to contribute to job creation in an area of unemployment	+
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products	?	?	?	Limited likelihood	The site is likely to contribute existing capacity in the county rather than diversify the range of facilities, and it would have little or no clear impact on the other criteria, so it is not clear there would be a significant impact	?
Summary of Assessment							
<p>The allocation would be beneficial if it helps to return parts of the port estate to industrial use, as this will contribute to efficient use of local brownfield land resource while also helping to sustain the economic viability of the port. As an existing employment site, it is particularly suited to waste uses alongside other industrial uses, and provided those uses are comparable in scale to other structures on the site. Introduction of new waste facilities has the scope to increase cumulative impacts of all activity on the site, but this would need to be confirmed at the time any planning application is received.</p> <p>Otherwise the site is sufficiently distant from most sensitive receptors that the potential for impacts are limited. The main exception to this is the possible effect on water quality at the mouth of the River Derwent and mitigation will be necessary to limit any contribution the site might make to that generated by other activities in the port or in other sites adjoining the river.</p>							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: development in the port has the scope to generate synergistic impacts if it results in export of materials, stimulating traffic and helping to sustain its economic viability.</p> <p>Cumulative: potential depends on how much of the site is re-developed for waste use. There is clear scope for cumulative impacts as a result of these developments and further impacts if there is development in the port and to the north (see assessment for site AL3).</p> <p>Synergistic: there is sufficient spare land to enable co-location of more than one waste facility in close proximity which would make some contribution to reducing emissions and other impacts if the alternative capacity is spread across dispersed sites.</p>							
Mitigation Proposed							
<p>It would be prudent to refer to the need to address the following measures in the description of the allocated site though most would be evaluated at the planning application stage:</p> <ul style="list-style-type: none"> Traffic: cumulative traffic impact; routeing agreement for access to the site within the town; assess safety impact on cycle routes; previous SA assessment also refers to possible need for improvements at junction at entrance to the port estate. Dust, noise, etc.: scope to permit open storage and any mitigation necessary (proximity to open water would need to be taken into account). Drainage: need for SuDS, filter traps and other mitigation to limit risk of contamination by run-off and overland flow. Ecology: retention of some habitat to support the Small Blue butterfly and other rare species as there appears to be sufficient vacant land to meet the waste need and provide this mitigation. However the amount of land retention as habitat will need to take account of the opportunity the site offers to co-locate waste facilities and the need to use land to maintain the economic viability of the port. (Note that this approach appears to be more viable than for allocation AL3 due to the amount of vacant land within the port estate). 							

CA11 – Willowholme, Stephenson Industrial Estate, Carlisle –various waste treatment or recycling uses – approx. 3ha

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	√	√	√	Very likely	Site is fairly centrally located within the town though this would mainly benefit waste contractors rather than residents and access is via a long and apparently unadopted road through the rest of the industrial estate. There is no obvious scope for modal shift as the adjacent railway line is on an embankment and it is assumed the River Eden is deep enough to enable barge movement of waste regardless of nature conservation issues	+
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	√	√	√	Very likely	A footpath runs between the site and the adjacent river so there may be a recreational impact however the path also passes industrial units to the southwest of this site and limited vegetation along the boundary means the adjacent waste water treatment works are also visible from the footpath. The site is accessed via the single road serving all other facilities on the estate and therefore there is scope for cumulative impact on receptors on the access roads to the estate, for which there is a single access point	+
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No adverse impact	Potential impact on heritage assets is covered in the assessment against objective EN2.	(+)
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources	√	√	√	Quite likely; at worse very likely	Previous assessment identifies that the site was inundated during the severe floods in 2009. The principal risks are contamination of the adjacent River Eden SAC and SSSI with material washed or blown off the site. Mitigation measures can reduce these risks to some extent however they suggest any additional waste use of land in this part of the estate should be restricted to enclosed facilities. Previous assessment has also identified possible use of the adjacent riverbank by a number of protected species which would require further survey prior to submission of a planning application. Satellite images indicate that there are a number of relatively mature trees along the boundary with the footpath, which will have to be retained if they provide habitat for protected species.	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 	?	?	?	Limited likelihood	The site is in an industrialised urban setting so the principal impacts would affect heritage assets. The previous assessment identifies the site as being within the Hadrian's Wall WHS Visual Impact Zone. However, the path of the Wall runs through the southern part of the estate and is already built over by industrial units. It is not clear that development on the site would have an additional adverse impact provided that structures are proportional to those elsewhere on the estate. The site is also reported to be next to a 'historic' ford across the River Eden though the exact location has not been identified and any potential impact would need to be reviewed in the event that a planning application comes forward.	?
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	√	√	√	Very likely adverse impact in some respects	<p>Impact on built and other heritage assets is discussed above.</p> <p>Development would introduce some additional impacts from waste management activities that should be capable of being mitigated using best practice implemented through a planning and/or environmental permit.</p> <p>Development is likely to be in keeping with surrounding land uses but without scope to enhance the urban environment. Ideally development should be prioritised towards the southwestern end of the site so it forms an extension to uses on adjacent plots, leaving open land on the rest of the plot if possible.</p> <p>Previous flood history of the site indicates this site is not ideal even if there are additional new flood defences. Its location (partially) in Flood Risk Zone 3 means it is not suitable for hazardous waste facilities or non-inert landfill.</p>	Flood risk: -
							Other issues: o
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals 	√	√	√	Inevitable though scale depends on use	The site should ideally be restricted to closed waste facilities as this will limit the impact of dust and other emissions on the immediate vicinity, and particularly the risks of contaminating the adjacent water environment. The central location would have some benefit in reducing emissions and dust from carrying wastes over long distances (assuming the site primarily serves the immediate vicinity of Carlisle) though some cumulative effect on properties in the vicinity of the site would be inevitable	+/-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	and waste sectors						
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water	√	√	√	Quite likely	There is potential risk of contamination of the adjacent River Eden as a result of future flood events even if the site is developed as a built waste facility and on-site drainage measures (e.g. oil filters, silt traps) are installed.	-
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat	?	?	?	Limited likelihood	This is a partial brownfield site and it may need remediation prior to development (which would require particular care due to risk of impact to the adjacent SAC and SSSI). However it would have no impact on good quality land resources.	+
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working	√	√	√	Quite likely but depends on use	Proposed uses will contribute to reducing landfill rates and/or removal of local wastes to recycling and treatment facilities some distance from the town, or outside the county. The potential impact on the adjacent river suggests that the site should not be for open waste uses and therefore it may offer no scope to encourage use of secondary aggregates though this does not affect the overall assessment.	+
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√	√	Very likely	Assuming the site will house a new facility adding capacity to the county's waste infrastructure then it offers some scope for additional employment.	+(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need	✓	✓	✓	Very likely	Assessment as above. The facility is assumed to be accessible using public transport (or cycle) though it appears to be about three quarters of a mile from the site to the entrance to the estate.	(+)
EC3: To diversify and strengthen the local Economy	-Stimulate private investment within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products	?	?	?	Depends on use	Any positive impact is likely to result from the site supporting new waste facilities that do not exist elsewhere in the vicinity (or in the county)	?
Summary of Assessment							
The site is fairly centrally located within the city, with good access to the strategic road network, and situated within a sizeable industrial estate, so that development would be compatible with many adjacent uses. Further survey is needed of potential cumulative impacts from dust, emissions, etc., but the site has the advantage of being some distance from human sensitive receptors. Its proximity to sensitive ecological and heritage assets requires further specific survey, prior to submission of a planning assessment, and this could lead to a reduction of the area that could be re-developed in order to provide necessary buffering or visual screening, habitat placement or enhancement. The main drawback to this is that it lies in Flood Risk Zone 3, and although flood defences in the vicinity have been improved since the events of 2009, there is still a risk of inundation; therefore, further development of the site could be limited. As other allocations in the city are proposed for similar waste uses, it is considered likely that the site would fail the Sequential test and could not be supported.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified (all principal impacts are likely to be direct if unmitigated). Cumulative: noise (traffic and equipment), emissions, dust and possibly odours (with WWTW to east) though scale will depend on whether development is open or enclosed. Synergistic: none identified.							
Mitigation Proposed							
Principal measure is to restrict development to enclosed waste use, possibly requiring internal storage of incoming material and any baled (or similar) outputs in order to limit impacts on adjacent biodiversity assets. Possibly require buffer zone along the north western boundary to reduce risks of impacts to the river and provide scope for biodiversity improvement and visual screening of the site from the adjacent footpath. Additional assessments for protected species, heritage impacts on the adjacent historic ford, and of cumulative traffic impacts on the junction of the access road into the estate with the A595.							

CA30 – Kingmoor Road Recycling Centre, Carlisle – waste management facility – area approx. 2ha

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Very likely	The site is proposed to re-instate a recycling facility (with the intention of capacity increase and/or diversification) on a relatively accessible location at the urban fringe (though a low bridge creates some restrictions from the north).	+
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	✓	✓	✓	Quite likely but depends on type and scale of use	Site entrance faces housing and shops so any growth in throughput or change in use would need to consider whether any increase in impacts would be excessive. As a result a moderate increase in throughput rather than change or broadening of use (introducing new impacts) would appear preferable. The site is well connected to the Carlisle Northern Development Route but the access is impeded by a rail bridge with a 4.2m height restriction that would prevent it being used by larger HGVs; access to the site from the south passes a substantial number of residential properties.	-(-)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport	✓	?	?	Possible	It is unclear whether there may be an impact on the existing leisure use on adjacent land.	(-)
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and	✓	✓	✓	Inevitable	The site is adjoined to the west by Kingmoor Sidings Local Nature Reserve (mixed woodland) and to the east it faces the Kingmoor Sidings County Wildlife Site. Taking a precautionary approach, development could result in	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	species -Enhancement of natural/ecological resources					cumulative impacts on both assets (though the former is more likely to be affected). This situation suggests that any diversification of use may have impacts that were not mitigated during operations at the site before the fire. Land to the north of the site is known to contain habitat used by great crested newts and, therefore, development of the site may require provision of compensatory habitat in the vicinity if this can be found. Use of this adjacent plot by protected species, breeding birds, etc. would also need further survey.	
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity	√	√	√	Limited likelihood	The site is 100m from the edge of the WHS visual buffer zone but appears to be screened by woodland in the adjacent LNR and further impact is likely to be negligible provided any new structures do not exceed the scale or elevation of those already on the site. A key issue is that the site is 500m from the Stanwix Conservation Area. Any traffic unable to access it from the Carlisle Northern Development Route would have to use Etterby Scaur and Eden Place, passing through the Area.	-
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area	√	√	√	Varies from very likely to limited likelihood depending on impact	Historic impact: see assessment above. Flood risk: the site is in the lowest flood risk zone. Amenity impacts: the main issue will be limiting any cumulative impacts on nearby properties and natural receptors as a result of any increase in throughput or change in waste management function.	(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	?	?	?	Limited likelihood	<p>Closure of the site following the fire in 2014, has meant that waste has been taken to the Hespin Wood Waste Management Complex, some way north of the city. A re-instatement of this site to waste management use will help to reduce waste miles back to their earlier level.</p> <p>Any increase in throughput as a result of integration with these other waste sites would need a review of the suitability of existing mitigation measures.</p>	?
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 	√	√	√	Quite likely	<p>Previous contaminated land survey has identified the potential risk of contaminants being washed by surface flow or percolation into the brook to the west of the site, which provides a pathway to the River Eden SAC. This risk could be addressed if the plot is covered by hard standing with drainage to foul sewer. Any open waste management use could also result in dust blow-off, which might also contaminate the brook, although this is likely to be a lesser risk than that from water dispersal.</p>	-
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 	√	√	√	Quite likely	<p>The existing plot is brownfield land that may be contaminated. so may require remediation if it was developed (particularly if this involved excavation of foundations and/or piling work).</p> <p>No loss of agricultural land.</p>	-
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as 	?	?	?	Quite likely but depends on use	<p>Re-instatement of the site as a recycling facility will provide a relatively conveniently located facility serving Carlisle, its surroundings, and possibly a wider catchment in the north of the county. As such the proposal supports the initial assessment criterion.</p>	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working						
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√	√	Quite likely	Expansion of throughput or waste management functions has the potential to generate new jobs in the town (recognising the impacts of expanding the size and capacity of the site).	(+)
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need	√	√	√	Quite likely	As above. Though the proximity of the site to residential property creates problems its location implies it is readily accessible on foot, by cycle or public transport, rather than private car.	+
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products	?	?	?	Depends on use	The immediate priority appears to be bringing the facility back into use to provide recycling capacity within the town rather than using contingencies some distance away. However its benefit in terms of other criteria appears to be limited.	?
Summary of Assessment							
This site is well located to serve the city, but has a number of drawbacks. It is located very close to housing and ecological assets, and a nearby low bridge restricts access to the site from one direction. The aim is to expand the site to increase throughput, without changing or broadening its waste management function, as this would appear to offer a reduced risk of increasing any existing impacts or creating new ones as a result of introducing new waste functions and equipment on the site. The height restriction on the rail bridge to the northwest and the desirability of avoiding (or at least minimising) lorry movements through the nearby Conservation Area, suggests that the scope to increase capacity should be limited and controlled by planning conditions applied to vehicle size and routing. This site's close proximity to housing means it is not an appropriate location for an energy from waste facility on any scale.							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: none identified.</p> <p>Cumulative: these would result primarily from any increase in throughput at the site and its effect on noise, traffic, dust, odours, etc.</p> <p>Synergistic: the bridge access restrictions may limit scope to integrate functions on this site with rail delivery (or removal) of material though there is greater scope to integrate it with any facility that comes forward on allocation CA31. While this would also be limited by the bridge height restriction the use of medium-sized vehicles (rather than large HGVs) may not unduly affect emissions.</p>							
Mitigation Proposed							
Any change in the throughput or the range of waste facilities performed should result in a review of whether the existing mitigation measures would be appropriate and effective for the intended future use. A survey of the use of the site by protected species is necessary. Appropriate mitigation of land contamination risks, particularly in terms of disturbance and excavation of material that could then find its way into surface watercourses is also necessary, as is the need to prevent water running off the site and percolating into the soil beneath, carrying contaminants in solution into adjacent watercourses or uncontaminated greenfield land.							

CA31 – Kingmoor Park East, Carlisle –various waste treatment or recycling uses – area of site not identified at present

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1:To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Very likely	Although the site is peripheral to the town the intended uses suggest that it could serve a wider catchment. The site is served by the Carlisle Northern Development Route, improving its accessibility from the town and the surrounding district via the junction with the M6 to the northeast It is also adjacent to Kingmoor Sidings to the west although they are not directly accessible as they are on the opposite side of the West Coast Main Line.	+(+)
SP3:To provide everyone with a decent home	-To help meet local housing need				No impact		0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	√	√	√	No adverse effect	The site is brownfield land surrounded on all sides by different industrial uses (including railway land) and is some distance from human receptors.	++
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport	(√)	(√)	(√)	No impact	(Assessment regarding heritage impacts is included against objective EN2. Otherwise there are no implications on the other criteria and therefore the assessment is intrinsically positive).	(+)
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources				Limited likelihood	The ecological value of the site is unclear but it is separated from the nearest local designation by a cluster of industrial units and the risk of impact appears limited. There is a possible risk of impact on the River Eden SAC about 1km to the west but the railway corridor lies in between so the most likely potential pathway would be airborne pollution. There is possible use of the railway corridor by great crested newts, but most of this area lies a little distant on the opposite side of the West Coast Main Line. Nevertheless it would be prudent to require the site to be surveyed for biodiversity value (Phase 1), invertebrates, reptiles and protected species.	+
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity	(√)	(√)	(√)	Limited likelihood	The site lies in a designated employment zone and is adjoined on three sides by plots containing industrial units likely to be similar in scale and design to a waste facility on this site. The site is outside the visual buffer zone around the Hadrian's Wall WHS. It has been proposed as suitable for an EfW facility and the visual impact of a facility with a stack in this area would need further assessment. Overall, the lack of adverse impact is assessed as implicitly positive.	(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	√	√	√	Likely to be inevitable	<p>Heritage impacts are referred to above and the site is in an area of low flood risk.</p> <p>Development will give rise to additional impacts from dust, emissions, etc., that inevitably result from new waste facilities but which can be addressed through standard best practice mitigation measures. Nevertheless it will be necessary to assess cumulative impacts on the road network and adjacent land uses, most of which appear to be enclosed.</p>	+(+)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Likely though scale of benefit depends on use	<p>The site is well located with respect to potential sources of waste from the town, the surrounding district, or elsewhere in the county if its proximity to the Kingmoor sidings can be exploited. The site has the potential to support an EFW facility subject to further assessment of wildlife and visual (and heritage) impacts. The railway sidings could allow delivery of fuel stocks from the central and southern parts of the county though it may be necessary to apply planning conditions to limit import of material from outside the county – recognising that the same issue applies to non-EfW development on the site.</p> <p>The site is also relatively close to the existing recycling facility (allocation CA30) though it is a little distance to the south and not strictly co-located. Nevertheless scope exists to locate treatment or reprocessing facilities on this site that could receive materials separated on the other site, contributing to reduced waste miles.</p>	+
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 	(√)	(√)	(√)	No impact	There are no artificial or natural waterbodies in the vicinity and comments against objective EN1 suggest the potential risks to the River Eden SAC are limited by distance. As a result the overall assessment is implicitly positive due to the lack of impact.	(+)
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce amount of contaminated land in the area -Loss of high grade 	√	√	√	Very likely	The site occupies a plot on a former military depot therefore a Stage 1 land contamination survey is advisable. However it is a brownfield site and could deliver additional waste capacity in a suitable location avoiding development on agricultural land or in other urban locations where the risk of impact to all	+(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat					types of sensitive receptors is greater.	
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working	√	√	√	Very likely but depends on use	The range of potential uses covers several levels in the Waste Hierarchy and, ideally those in higher tiers (reprocessing for re-use, recycling, composting) should be prioritised. However this site may be more suitable for an EfW facility than other locations and this may support its use for this purpose provided this does not prejudice development of recycling and similar facilities at other locations nearby or elsewhere in the county.	+
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√	√	Very likely	Any development of the site appears likely to add new waste management capacity and would therefore contribute jobs	+
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need	√	√	√	Quite likely	Development would increase the supply of jobs in the Carlisle urban area. While the peripheral location reduces risk of impact on human receptors it increases the distance from residential areas and this may disadvantage some residents without cars if the site cannot be accessed by the existing public transport network (though it is presumably relatively accessible by cycle).	+
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products	?	?	?	Depends on use	It is not clear if development would address any of the criteria directly. Use of the site for an EfW facility would diversify waste management capacity in the county, recognising the perceived adverse public perception of this type of facility.	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Summary of Assessment							
This site is in a very sustainable location, insofar as it is well situated with respect to local sources of waste and labour supply. It has good access to the strategic road network, scope to exploit nearby railway infrastructure for modal shift, and is remote from a wide range of sensitive receptors and other designations. The site is potentially suitable for a range of enclosed (or possibly open) waste management uses, including the provision of an EfW facility to meet the specific need identified in policy SAP2. Proximity to the nearby sidings provides scope for the modal shift of delivery or removal of materials to/from the site, but the County Council will need to consider whether to restrict waste imports from outside the county, in order to reduce exports, and avoid becoming a net importer of certain wastes.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: possible development of an EfW facility on the site would necessitate a sizeable stack in order to meet the requirements for the Waste Incineration Directive for the dispersal of exhaust gases and this is likely to introduce a new structure considerably taller than those on the existing built plots. The resulting visual impact would need further consideration, particularly in terms of the nearby World Heritage Site visual impact zone (though the site lies outside it) although high-tension power lines already cross it. Cumulative: the most likely impact would be on roads and specifically the traffic on the Carlisle Northern Development Route. Synergistic: a facility on the site might operate in conjunction with the refurbished recycling plant to the south (allocation CA30). Network Rail also operates a recycling facility on the nearby sidings though this is understood to recycle waste rail ballast and sleepers and may not offer any synergy with the other two sites.							
Mitigation Proposed							
Mitigation requirements are primarily best practice requirements for supporting detail of waste developments and will probably include those required by the local planning authority's validation lists. A planning permission will need to be supported by ecological assessments to check on use/occupancy of the site by various protected species. Assessment of cumulative impact on traffic on the Carlisle Northern Development Route is also advisable. Further assessment and mitigation may be necessary if the site is proposed for an EfW facility.							

CO11 – Bridge End Industrial Estate, Egremont –enclosed waste management or treatment facility – area of 2.7ha

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport	✓	✓	✓	Quite likely	The site could provide recycling capacity away from the main coastal towns reducing waste miles for some materials. There is no scope for modal shift as the site occupies railway land long since abandoned.	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6- 15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	choices						
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	√	√	√	Depends on use but potentially limited likelihood	May result in some marginal (cumulative) increase in dust and vehicle emissions but allocation clearly envisages an enclosed facility which could significantly reduce these impacts. Housing is a short distance to the northwest (already partially screened by deciduous trees) and to the northeast (partially screened by a hedge around the plot). In both cases the properties already have views of industrial premises as the "industrial estate" appears to be a mosaic of units interspersed with residential premises. The main issue is whether a further unit which would occupy currently open land would be an unacceptable cumulative impact (visual encroachment) on these properties.	(-)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact	(See assessment against objective EN2 for comments on heritage issues)	0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources	√	?	?	Limited likelihood	Protected species are present in the vicinity and therefore ecological survey will be necessary. The site occupies an elevated position above and some distance from the River Eden; there are industrial units to the west and northwest that are much closer to the river and therefore more likely sources of adverse impacts. Any impacts should be capable of mitigation using best practice together with waste activities confined within the building. The disused railway line forms the western boundary of the site and could be retained as habitat and visual mitigation without unduly reducing the developable area. There is no apparent scope for impact on the Florence Mines earth heritage SSSI to the northeast.	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 	√	√	√	Limited likelihood	Development would result in a further extension of the industrial estate onto additional land which is designated for employment use. It does not appear to have any impact on landscape character provided any structures on the site are of a comparable scale and elevation to others on the industrial estate (which includes one quite large and visible box).	?
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	√	√	√	Limited likelihood	<p>Historic environment: see previous comments.</p> <p>Flood risk: the site is elevated above the river so is not at risk but any paving (or similar) would alter percolation and run-off rates and would need to be addressed with drainage measures to limit flood risk (mainly from overland flow) on property to the west and northwest.</p> <p>Amenity impacts: new use of the site has the scope to increase impacts in conjunction with other activity on the industrial estate and any cumulative impacts would need to be assessed at the planning application stage. The relatively small size of the site will limit the scale of impacts.</p> <p>Environmental quality: the site is greenfield and therefore development has a potentially adverse impact on the rural area. However it is allocated for employment use and it is not clear that an enclosed waste facility would give rise to impacts markedly different from other non-waste light industrial uses similar to those generated by other units on the industrial estate.</p>	+/-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Limited likelihood	Dust or other emissions would primarily result from movement of materials to/ from the site if the activities are enclosed. Road transport is the only feasible option but the small size of the site suggests its best role could be in providing local waste processing for the communities inland from the coast all of which are linked by the A595 which passes the site.	+
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 	√	√	√	Very likely	The site will require a drainage design that takes account of the fact that it is currently grassland and any paving will alter runoff and percolation rates, diverting water down the incline along the western boundary. The allocation favours enclosed waste use and any risk of dust or pollution by material blown off the site to the River Eden could be limited by ensuring all waste activities – including storage – are indoors.	(-)
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 	√	√	√	Very likely	The site is identified as likely to be high grade agricultural land though it is also designated for employment use and therefore the District Council considers it suitable to be reallocated for commercial or industrial use (recognising also that the amount of land lost is small and most of the land to the east, south and west of the site is in agricultural use already). Any impact on the soil environment around the site can be mitigated if all waste activity occurs indoors.	(+)/-
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as 	√	√	√	Very likely if very localised	Development appears to offer the scope to provide recycling or similar capacity serving smaller inland communities and the rural areas beyond albeit on a small scale. As the site is proposed for enclosed use only it is unlikely to be suitable for aggregates reprocessing which tends to occur in the open and which could lead to impacts which this assessment does not anticipate for that reason.	(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working						
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√	√	Quite likely if limited	Offers the potential for job creation in a small community in a rural area where unemployment may be a continuing problem (though the size of the site suggests the benefit may be small).	+
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need	√	√	√	Quite likely if limited	As above.	+
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact	No obvious implications for any of the criteria.	o
Summary of Assessment							
This site has benefits and drawbacks in equal measure. It is greenfield land of potentially good agricultural quality and its development would extend the built footprint of Egremont slightly. The potential to contribute to flood risk on adjacent land can be addressed with mitigation, and its allocation for employment use at a Key Centre in the district, means that some increase in traffic and visual intrusion from a new industrial building are considered acceptable, provided both are modest in scale. This is likely, as the relatively small size of the plot suggests it would support a modestly-sized facility serving the needs of the district not the wider county. A previous consultation response from the District Council has proposed that the site is too small for waste use, but this is not the case, and it appears to offer scope to provide ancillary capacity away from the coastal towns, which can make an incremental contribution to reduced waste miles and local job supply.							

<i>Assessment framework</i>		<i>Permanence</i>			<i>Characteristics of impacts</i>		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6- 15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: none identified (impact on drainage considered to be a direct impact)</p> <p>Cumulative: possible impact on traffic and visual intrusion with other existing facilities though the plot is designated for employment use which would appear to prejudice the likely significance of these impacts.</p> <p>Synergistic: none identified</p>							
Mitigation Proposed							
<p>The small scale of the site should limit the impacts and best practice mitigation should be satisfactory subject to assessment of any eventual development proposal. Specific surveys will be needed of wildlife use and of site drainage requirements to limit impact of runoff on land to the west.</p>							

SITES IDENTIFIED IN POLICY SAP3 FOR THE TREATMENT, MANAGEMENT, STORAGE & DISPOSAL OF RADIOACTIVE WASTES**CO32 – Land adjacent to Sellafield –disposal and/or storage of radioactive waste – area estimated as approx. 50ha***Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact). This is shown in the 'Score' column.*

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	(However see comments against Objective NR1.)	0
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people			✓	Very likely though localised	Main impact would be on a limited number of properties (mainly farms). The closest are in the hamlet of Calder which is about 200m from the perimeter of Sellafield at its closest point though development on the very south side of the proposed plot would be closer. This is likely to be the most significant impact as others (including noise and dust) could be addressed by high quality mitigation and/or by locating any facility in the north and western parts of the proposed plot. (Note that the scoring reflects the limited number of properties affected but clearly must be assessed as fairly significantly adverse.)	-(-)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact	(It is assumed any impact on the community and amenity would be subsumed by comments against other Objectives.)	0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species			✓	Very likely	The wider site is open, good quality agricultural land that has intrinsic biodiversity value and which may be occupied or used by a number of protected species. Natterjack toads are likely to be present in the vicinity	-(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	<ul style="list-style-type: none"> -Restoration of habitats and species -Enhancement of natural/ecological resources 					<p>though the site does not appear to contain the main habitats they require. Several county-level biodiversity designations and earth heritage assets are in the vicinity (200m to 1.5km distant) though these distances are measured from the nearest edge of the site and may be greater if a facility is located in the centre of the plot or to one side. The facility is likely to involve an engineered landform that may not be capable of restoration to agricultural use but which could provide scope for habitat creation and/or improvement. Depending on the location of any facility within the wider site, water quality in the River Calder may need to be protected as it is used by salmon migrating to an SAC upstream. The assessment is fairly strongly negative but is mitigated somewhat by the scope for beneficial restoration.</p>	
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 			√	Limited likelihood	<p>The likely facility is described as 'near ground' but this assessment assumes that capping or restoration might result in a low raised landform. The site is likely to be more visible from the edge of the National Park to the east and the NP Authority would need to be consulted on appropriate visual mitigation of any impacts when the site is being prepared and filled and if restoration would result in a slight increase in elevation above the surrounding area. However the area is generally flat and screened to some degree by surrounding woods and hedges and it is not clear that the long-term visual impact would be adverse or significant.</p>	(-)
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 			√	Quite likely but variable	<p>Historic environment: consideration may need to be given to impact on the setting of listed buildings however the likely nature of the facility suggests this impact would be limited and much less than the impact of proximity to the main complex.</p> <p>Flood risk: the site is in the lowest flood risk zone; however see comments for the assessment of Objective NR2.</p> <p>Impacts: again, the impacts would be limited by the nature of the facility and would need to be mitigated using best practice measures for engineered landforms to limit impacts of dust, etc., particularly during clearance and construction.</p> <p>Enhancement: any degradation of the rural environment around the Sellafeld complex would occur during preparing and filling of the site but could be mitigated by appropriate restoration.</p>	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 			√	Very likely, possibly inevitable	As with allocation CO36, development obviates the need to move radioactive waste originating in the Sellafield complex by road or rail, reducing inherent risk and impacts.	++
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 			√	Quite likely	<p>The exact nature of the facility is not known and may involve shallow below-ground storage and/or disposal and/or an engineered landraise which will cap the facility once it has been filled. However the site may be restored to the existing ground level.</p> <p>An alternative use for the site may be as a temporary or long- term store for non-radioactive construction and demolition waste created by works around the Sellafield complex.</p> <p>Containment to prevent contamination of the soil or groundwater environments will be necessary and should be appropriate to the type of material in the site.</p>	-
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -Reduce contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 			√	Inevitable	The nature of the facility implies that there would be irreversible loss of good quality agricultural land. The proposal presents some risks of contamination of surrounding land by material blown or running off the site though this is most likely to be excavated inert material and the main risk is more likely to occur during construction or if it is used for temporary storage of other waste as referred to above.	-
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area 			√	Inevitable	Complies with national policy and strategic policies in the Plan prioritising the management of wastes at source or as close as feasible.	++

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	<ul style="list-style-type: none"> -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working 						
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 			?	Limited impact, short-term only	<p>Job creation is only likely during construction of the facility with limited ongoing need once any site is operational.</p> <p>Previous consultation indicated concerns that development would hinder investment in the local area though it is difficult to see what additional adverse impact would occur as a result of developing this facility provided it is very close to the existing complex.</p>	(+)/?
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No impact		o
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in recycling and use of co-products 			?	No impact	See comments against Objective EC1.	o
Summary of Assessment							
<p>This site would extend the footprint of the existing Sellafield site, but it would be different in nature. It has the potential to accommodate an engineered voidspace, reserved for lower activity LLW generated by de-commissioning activity on the adjacent complex; however, an alternative use, for storing clean or contaminated construction and demolition waste, is also under consideration. It is not clear whether any voidspace would be excavated or whether it would be a landraise, and this may have implications for temporary or permanent visual impact, though this is not expected to be significant. Regardless, the facility would not be a built structure and this factor, combined with the nature of the wastes, reduces the likely severity of some of the potential impacts. Best practice mitigation would still be required to prevent contamination of surrounding agricultural land, particularly by dust generated during construction, and to prevent any impact on the ground and surface water environments, using mitigation appropriate to the type of materials stored and/or disposed on the site. Some visual impact on nearby properties and on views from the more distant National Park are inevitable, though they would be limited if the facility/landform has a low elevation. Development would also result in permanent loss of some good quality agricultural land, and impacts on local nature conservation designations will require further assessment, though restoration could provide some compensatory habitat improvement.</p> <p>It is not considered that the whole of the allocation would be developed; rather, further assessment would narrow down the most suitable area(s) for each waste use, and mitigation of the identified impacts would still be necessary. The proposal is not as sustainable as allocation CO36, which falls wholly within the existing Sellafield complex.</p>							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: none identified.</p> <p>Cumulative: any impacts are likely to be cumulative with those from operation of the main complex. Road impacts would be limited to the construction phase only, unless the rail link was used, as wastes would be moved within the expanded Sellafield site without access to public roads.</p> <p>Synergistic: the main benefit comes from concentrating civil nuclear activities in close proximity reducing the possibility of impacts on other parts of the county or further afield (the latter being a concern of the Plan in terms of its broader sustainability even if it has a lower local priority).</p>							
Mitigation Proposed							
<p>The nature of the facility is unclear but it is understood it may require an earth-bunded landform (and subsequent earth-capping during restoration) to include measures to prevent movement of water away from the feature and other materials being carried or blown off the site. Mitigation measures should reflect whether the facility eventually received LLW or non-radioactive wastes generated on-site. Specific measures would be needed during construction to prevent dust and other material being blown onto adjacent agricultural land. The likely low elevation of the facility and containment using bunds is likely to be sufficient to mitigate the principal visual impacts. Further consideration would also need to be given to the impact on protected species and the scope for habitat compensation if part or all of the site is developed.</p>							
Additional Comment							

CO35 – Low Level Waste Repository, near Drigg – storage and/or disposal of low level radioactive wastes – area estimated to be approximately 107ha

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-Improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	Proposals involve maximising delivery of wastes to the site by rail (though it appears some delivery by road would continue).	+(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	?	?	?	Limited likelihood	The impacts are assessed as being negligible as the proposal is to continue an existing use of the site and continued use of appropriate storage facilities and mitigation and it is not evident that there would be any change other than in the length of time over which the site would receive materials.	?
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact		0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources	(√)	(√)	(√)	Limited likelihood	Earlier HRA has concluded there is some risk of impact to the adjacent SAC and there are other designations (mainly SSSIs and some priority habitat) that might be affected. It is expected that existing mitigation measures would provide satisfactory protection.	-
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity				No impact	The facility contains low-level structures and therefore has limited impact on these criteria.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 				No impact	There are small areas of flood risk zone 2 and 3 in the very south of the site. It is not clear what measures are in place to limit any risk to the wider site and that additional capacity would only be provided on low flood risk parts of the site protected as necessary,	0
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Very likely but only in certain respects	Dust emissions are expected to be addressed by on-site mitigation (wheel washing and damping down of areas in dry weather) and by continuing use of rail delivery to the site where this is feasible.	(+)
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water	(√)	(√)	(√)	Limited likelihood	Same assessment as Objective EN1 as the principal waterbody that would be affected is protected by Natura 2000 designations.	-
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 				No impact	(No impact in the expectation that containment infrastructure is built to prevent contamination to the air and land environments.)	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working 	(√)	(√)	(√)	Likely	The County Council's position (including that stated in Policy SP4) supports use of generic waste management policy (including both BAT and respecting the Waste Hierarchy) and therefore the assessment is positive.	+
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 				No new impact	It is assumed that no new employment would be created (except possibly in short-term construction activities) although existing employment would be safeguarded.	(+)
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No impact		o
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Summary of Assessment							
<p>The principal reason in favour of safeguarding this site, is to concentrate management capacity on an existing site rather than exposing other localities to similar issues, but recognising that if the facility ceases to accept LLW for storage after 2018 (as per the current planning permission), then any material in storage at that time would have to be relocated to an alternative location. The assessment expects that the existing mitigation measures will persist while the site continues to accept waste for storage (or for future disposal), though further clarification is necessary of the risk of impact on adjacent Natura 2000 designations immediately to the west, and of any additional measures that will be warranted. It also anticipates that the very small area of the site at medium or high flood risk is part of the buffering zone around the edge and that future storage or disposal areas are sufficiently distant from it and protected by existing, viable flood defences.</p> <p>The LLW Repository is currently the principal facility in the UK receiving such wastes although less than a quarter of deposits originate within the county. The proposal to safeguard extended and possibly increased storage/disposal capacity reflects a national need, which is supportable if the material sent to the site cannot be managed at or close to source.</p>							
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: none identified.</p> <p>Cumulative: the principal impact is the concentration of LLW storage and disposal capacity in West Cumbria.</p> <p>Synergistic: none identified.</p>							
Mitigation Proposed							
<p>Given the nature of the existing activity on the site it is reasonable to expect existing mitigation measures are of the highest technical specification and rigidly enforced, Nevertheless it would be prudent to review their effectiveness and the possible need for additional facilities when evaluating any proposal to continue accepting LLW at this site. As noted above, further clarification is needed of the risks to the SAC and appropriate mitigation that may be required.</p>							

CO36 – Sellafield site – storage and/or disposal of radioactive wastes – area not identified

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		o
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6- 15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	choices						
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people			(√)	Limited likelihood	There are 30 residential properties within 250m of the boundary of the wider site however development of a facility for this purpose would not reduce this distance and proximity may be a greater issue for other activities on this site.	?
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact		0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources			√	Moderate likelihood	Possible need for drainage measures to protect water quality in the River Calder which is used by salmon migrating upstream to the River Ehen SAC though this may depend on the location of any facility within the site. Given the rural location the site is close to a range of national and county level designations, priority habitat and ancient woodland. All of these areas might be at risk though this needs to be set in context of other risks posed by the wider site. Various protected species have been identified on or near the site with specific concerns about the natterjack toad. However this species requires sandy heathland primarily, of which there is very little within the perimeter of the site.	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 				No impact	Any facility would be built within the curtilage of the existing industrial complex.	0
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 			√	Limited likelihood; possibly no impact	<p>Heritage impact: there are 2 listed buildings within the vicinity of the complex but any facility would be built within the curtilage of the existing industrial complex.</p> <p>Flood risk: most of the site is in flood risk 2 and 3 but existing flood defences provide protection. However see comments against Objective NR2.</p> <p>Impacts: again, the facility would be within the industrial complex and would only take wastes arising in the immediate vicinity so any new impacts appear unlikely.</p> <p>Impacts: any incremental impacts are expected to be negligible alongside those of the existing industrial complex. Overall the impact should be positive if it means wastes from the site are no longer taken down the coast to the LLWR or consigned elsewhere, irrespective of whether this transfer occurs by road or rail.</p> <p>Enhancement: no impact</p>	(+)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 			√	Limited impact but will be beneficial	Same impact as above in terms of avoiding local movement of LLW between Sellafield and other sites.	(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water			(√)	Quite likely	The facility may be an engineered landfill/landraise site on a modest scale that creates inevitable potential risks to surface and groundwater resources that would require mitigation measures appropriate to the level of activity of the wastes the site would receive.	-
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat			?	Limited likelihood	The principal potential risk is likely to arise from dust generated during construction and blown or washed off the site.	?
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working			√	Inevitable (if built)	The proposal is consistent with policies SP2 and SP4 in providing capacity to manage or dispose of wastes as close as feasible to where they arise.	++
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment			?	Limited likelihood	Any benefit is likely to be limited to construction jobs when the facility is built with limited ongoing employment once it is operational.	(+)
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		0
Summary of Assessment							
<p>This is a very sustainable allocation, as it would result in wastes being managed or disposed at source, obviating the need to use road or rail to transport them to the a suitable facility, and any risks and impacts that would arise as a result. Compared to allocation CO35, this proposal would accommodate further civil nuclear waste development within the existing complex, limiting the likelihood that it would generate incremental impacts and preventing the extension of risks and impacts to new locations. The principal adverse impacts are potentially on habitats supporting protected species within the site (though there is a risk if pollution were to travel down the River Calder, to species passing up the River Ehen to an SAC), and the need to ensure the integrity of storage or disposal areas.</p>							
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: the key secondary benefit will come from reduced use of the LLWR near Drigg both in terms of extending the potential life of the existing capacity and the corresponding reduction of any incremental impacts from transporting wastes from Sellafield to that and other sites.</p> <p>Cumulative: these are considered unlikely given the scale of activity in the wider industrial complex.</p> <p>Synergistic: none identified since the materials would be waste and are assumed to be unsuitable for reprocessing or recovery.</p>							
Mitigation Proposed							
<p>Any facility would need to be mitigated using measures at least as effective as those already in place. Further consideration needs to be given to preventing any contamination of land and water environments by material stored in an engineered landform, if that is the nature of facility that is developed. Location should be prioritised towards areas of the site that have been cleared but which are not in use at present. Development on wooded land along the eastern border and the plot just north of the mouth of the River Calder should be avoided to protect biodiversity assets. Open "greenfield" plots on the north side of the site would need to be assessed for use by protected species.</p>							
Additional Comment							

SITES IDENTIFIED IN POLICY SAP4 AS PREFERRED AREAS AND AREAS OF SEARCH FOR MINERALS**M18 – Stamphill, Long Marton (Eden) – Preferred Area for new open-cast gypsum mine – area not identified**

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices			✓	Very likely	The proposal is to use conveyor belts to carry excavated material from the mine to the nearby gypsum works avoiding any road use due to concerns about its suitability for HGV traffic.	++
SP3: To provide everyone with a decent home	-To help meet local housing need			?	Limited	There is an extremely indirect impact in that the Kirkby Thore plant supplies building material to the local construction industry but this is less significant than most of the other allocated sites.	+
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people			✓	Very likely	The northern part of Long Marton village lies within 250m of the edge of the allocation. There are also properties on the opposite side of the railway line that are around 200m from the eastern edge of the site. Although the area proposed for excavation is surrounded by a buffer zone of varying depth all of these premises are likely to be affected by noise, dust and possibly vibration resulting from plant on the site.	-(-)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact	Any impacts on the community are addressed through other comments in the assessment.	0
EN1: To protect and	-Impact on relevant habitats and species			✓	Very likely, positively	There are a number of potential pathways (assumed to be mainly airborne, and via surface and groundwater) that could result in adverse impacts to	-(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
enhance biodiversity	-Restoration of habitats and species -Enhancement of natural/ecological resources				inevitable	Natura 2000 sites in the vicinity and the species they support. Prior ecological survey suggests that there are protected species in the vicinity or possibly on the site (which is pasture at present). Open cast working therefore has a potential to impact all these assets without effective mitigation.	
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity			{√}	Limited likelihood	Impact is difficult to assess. The site is in an open upland landscape and though there are some undulations that will help to screen the excavation (together with the fact working will be below the surrounding ground level); however some visual intrusion appears inevitable. There is also likely to be a reduction in tranquillity as existing gypsum extraction occurs underground.	-
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area			√	Varying likelihood	Heritage assets: impacts would affect the setting of buildings in those parts of Long Marton closest to the site although this could be offset by the workings being below ground level. Flood risk: there is a small area of medium/high risk land where a stream crosses the northwestern end of the site outside the intended excavation area and the drainage design will need to ensure any landscaping or infrastructure (e.g. the proposed conveyor belt) do not extend the risk onto other parts of the site. The main issue will be effective drainage of the workings to enable movement of plant and address human safety. See also comments against Objective NR2. Impacts: working carries the likelihood of introducing some impacts into an area where they do not currently exist regardless of the effectiveness of any mitigation measures. Enhancement: there may be scope to restore the site to provide BAP priority habitat or to create other habitat to benefit the protected species in the area.	(+)/-
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities			√	Very likely	The principal benefit derives from proposed use of conveyor belts to take material from the site to the Kirkby Thore works, avoiding use of lorries with associated noise, vibration, dust and emissions impacts. This benefit is very likely to be offset to some extent by generation of dust by workings and depends on the effectiveness of any mitigation.	(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors						
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water			√	Very likely	A stream feeding Trout Beck crosses the northwest end of the site and the site drainage design will need to address both flood risk and prevention of silting. This may be the principal pathway for off-site contamination of Natura 2000 sites in the vicinity. Moreover the open cast mining will probably require drainage of the area under working and both the Environment Agency and Natural England will need to be consulted about discharge arrangements in terms of quantities and maintenance of water quality in streams.	-
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat			√	Very likely though not permanently	The site is greenfield and therefore the principal contamination risk lies in the future from dust and other material blown onto surrounding agricultural land which is assumed to be of the same high quality as the site itself/ Loss of productive land will be temporary though potentially over a substantial period depending on the depth of open-cast working.	-
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working			√	Very likely	The allocation would sustain the supply of raw materials to the Kirkby Thore works, which supplies a national market. Changes in construction practice resulting from the need to address climate change may alter the priority attached to using plasterboard, and the importance of maintaining supply of these products will need to be reviewed when a future planning application is received, as this matter will need to be judged alongside the apparent impacts on the surrounding communities if the site is worked. (The assessment does not pre-judge this issue and reflects the apparent importance of the Kirkby Thore works.)	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment			√	Very likely, if not inevitable	Will maintain economic viability of the Kirkby Thore works in the longer term, protecting jobs, many of which are presumably held by local residents.	+
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need			√	Very likely	Given this is a rural area, loss of the factory would force any local employees to look for work at more distant locations, so maintaining local jobs has an additional benefit.	+
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
This site was permitted for open cast extraction of gypsum about two decades ago, but that has now lapsed, though a new permission would only be required to continue supply to the Kirkby Thore works in about 15 years' time. The case for permitting the site turns on the importance of continued supply of gypsum products from the works to serve a national market, compared to the potentially substantial local impacts from this method of working in an area not subject to impacts from noise, dust, etc., at present. The potential to maintain jobs in a rural location, distant from larger employment centres, may also be a material consideration. Development has the scope to create a range of impacts affecting the local community (Long Marton village and other properties surrounding the site), as well as a range of sensitive receptors, particularly a number of highly protected wildlife designations and the species they support. The scale of development suggests that any future re-submitted planning application will need to be supported by a full Environmental Impact Assessment and detailed assessments of impacts and mitigation of wildlife impacts (specifically an Appropriate Assessment if one has not been conducted already).							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified other than potential to relieve possible traffic increase on local roads if conveyor belts are used. Cumulative impacts: none identified as there are no other comparable activities generating the same impacts in the vicinity. Synergistic: scope for habitat creation when the site is restored, recognising it is currently good quality land and restoration to agricultural use may be the priority.							
Mitigation Proposed							
This development may require mitigation to address a range of potentially significant impacts that do not affect the surroundings at present. The use of conveyor belts to carry material to the nearby works only addresses one of several issues. Open cast working would necessitate best practice mitigation to address impacts from dust (blow-off and in solution), noise (primarily plant as conveyors are relatively quiet), vibration and water quality. Archaeological records imply a desk or field survey may be necessary as this is an undisturbed greenfield site.							

M27 – Preferred Area - land adjacent to Roosecote sand and gravel quarry, Barrow-in-Furness

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		Score
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	There is no scope to use alternative modes to remove material from the site. Access will be via the existing quarry access.	0
SP3: To provide everyone with a decent home	-To help meet local housing need	✓	✓	✓	Very likely	The site can contribute to maintaining the supply of sufficient primary aggregate to meet needs in the southwest of the county. Aggregates are expected to be needed for improvement at Barrow Waterfront, Port of Workington Infrastructure and Ulverston Infrastructure Programme. Further potential infrastructure projects: North West Coastal Connections, new nuclear power station at Moorside, BAE systems shipyard at Barrow, Siemens and Glaxo Smith Kline at Ulverston.	+
SP4: To improve the level of skills, education and training	-Education and training	✓	✓	✓	Quite likely	Site presently employs two directly and 10 associated with haulage and admin. Extending the working life of the quarry could allow opportunities for new staff to join and undertake training.	(+)
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive	✓	✓	✓	Very likely	The closest human receptors are a few houses at Page Bank Lane, approximately 500m to the east. There are also houses on Dungeon Lane (800m north west). Roosecote is 1km northwest and Rampside 1.5km south of the quarry. Visual mitigation may	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6- 15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	receptors -Impact on the sense of well being of people					be necessary from the Rampside Road, but due to the profile of the land the quarry extension area would not be visible to residents. The location implies movement of aggregate past properties and through the major road network via the south east corner of Barrow-in-Furness. Noise, vibration and dust impacts would result though it is not clear that they would exceed those experienced from the existing workings unless either output increased, or area M27 was worked (or restored) at the same time as the existing area and nearby Area of Search at M12.	
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact		0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 	(√)	(√)	(√)	Quite likely	<p>There are two ephemeral water bodies that could support great crested newts and, although most of the habitat within the site is not optimal to support their foraging, these are qualifying species of the Morecambe Bay SAC, SPA and Ramsar, which are only 256m away. The fields may be also used by roosting/resting birds from the mudflats while the tide is in. Potential loss of habitat will need to be investigated.</p> <p>The built complex of the gas terminals lies between this site and the European Sites, and it is considered unlikely that silt laden water would flow from the quarry or that any restoration proposals for the site would have an adverse impact. Best practice mitigation of dust blow-off risk and appropriate drainage design would be required.</p> <p>The site's broken hedgerows between fields would be lost. There is only one of any significance on site that may support breeding birds and foraging bats. The hedgerows on site are a small percentage of those available in the wider area. Grey partridge, lapwing, red shank and tree sparrow are all recorded in the area.</p> <p>Although the site offers some potential for restoration to provide biodiversity improvement, most appears to be good quality agricultural land and restoration to this use would be a priority. However, the land may be utilised for the gas works expansion.</p>	(-)
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside 	√	√	√	Limited likelihood	The site is not remote but is semi-rural with a gas terminal, and a vacant site, between it and the coast. It is between two elevated positions and mitigation (bundling) may only be necessary from Rampside Road (on the eastern side). There is a significant strip of trees that will screen the area directly adjacent to it, so it is only on the approach from the elevated positions on the road that the	(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	-Recognise and respect importance of remoteness and tranquillity					site will be seen.	
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriate development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	√	√	√	Quite likely	<p>There may be ground-level heritage assets in the vicinity, and a survey, and potentially recording of threatened remains, will be required as part of a planning application.</p> <p>It would be prudent to require a future planning application to propose possible mitigation of impacts on Moor Head Cottages (Grade II listed buildings) in the event that the properties are to be renovated and re-occupied while the site is being worked.</p> <p>The site is not in a flood risk zone due to its elevation.</p> <p>Site drainage and any risks of material being washed off the site are low as the flow is likely to be north east towards the existing quarry and not onto adjacent agricultural land. Consideration will need to be given to extending the drainage plan for the existing site to provide appropriate mitigation (collection/dispersal) of run-off in this area.</p>	(-)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities 	(√)	(√)	(√)	Quite likely	<p>There is concern over NO₂ levels near the gas power terminal boundary but not enough to declare the area an Air Quality Management Area (AQMA). It is therefore not an area in which measures are being implemented to improve air quality.</p> <p>As with other minerals sites, there is inevitable scope for dust and other emissions from extraction and vehicle movements, but these could be controlled with best practice mitigation unless cumulative impacts arise from simultaneous development on all areas identified for mineral working, and/or from other developments in adjacent areas. However, faster development</p>	(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors					would decrease the duration of impacts. Movement of materials by other modes is not possible.	
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water	√	√	√	Quite Likely	The nearest open flowing water is Sarah Beck about 1km to the east of the site. There are (ephemeral) ponds in the curtilage of the proposed site. The site is over a major aquifer at high risk and an important consideration may be the scope to affect groundwater and its effect on water levels and quality. These matters would need to be addressed at the planning application stage, in combination with other developments in the area.	(-)
NR3: To restore and protect land and soil	-To reduce contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat	(√)	(√)	(√)	Inevitable and possibly permanent	Development would take good quality agricultural land used as pasture. This loss may or may not be permanent as there maybe plans to expand the gas facility onto the site once restored. Alternatively there would be scope to return the site to its original use if and when extraction ends. The topsoil should be stored to enable restoration to this use if it is considered the priority.	(-)
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the	√	√	√	Very likely	This extension to the existing sand and gravel quarry would increase and maintain the supply of sand and gravel to the local area. The vast majority of sand and gravel quarries are located in the north and east of Cumbria and there is a policy in the MWLP to “minimise road miles”. Maintenance of a sand and quarry to	++

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working					service the local area is a positive benefit. Extraction of the mineral prior to use of the site for extension to the gas terminal, or a new energy development, would also be a benefit.	
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	(√)	(√)	(√)	Limited likelihood	The purpose of the site is to provide continuity of supply in the event of increased demand in the area and, therefore, it is likely that jobs would be re-located if this occurs, with no increase in employment. (See additional comment under Secondary impacts in the summary section.)	(+)
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need	(√)	(√)	(√)	Limited (probably no) impact	Comments as above. It is also unclear how well the site is served by regular public transport, so employees would need a car impacting the scope for sustainable commuting.	0
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact	No direct impact, but a secondary impact of providing aggregate to support development.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6- 15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Summary of Assessment							
<p>This site is assessed as largely sustainable. Its main advantage is judged in planning terms insofar as it would maintain a supply of aggregate to serve the Furness peninsula and possibly a limited area beyond, and enable recovery of a mineral resource prior to non-mineral development.</p> <p>Specific issues include groundwater impacts and potential effects on qualifying species for European Sites.</p> <p>Extraction would result in the temporary loss of a modest area of good quality agricultural land and would have to be justified on the basis of maintaining the county landbank of sand and gravel. If this were to be permanent, due to a subsequent use of the land, this would have to be justified as part of the planning application for that proposal.</p>							
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: the provision of sustained supply of local aggregate would support local infrastructure development.</p> <p>Cumulative: possible risk if site allocation M12 at Roosecote Quarry and this supplementary site are both opened simultaneously, or if other developments (new energy infrastructure and National Grid connection) occur simultaneously.</p> <p>Synergistic: none identified. Site M12 (on the east side of Rampside Road) would provide additional, longer term supply.</p>							
Mitigation Proposed							
<p>The key mitigation requirement would be to protect the groundwater from any quarrying impacts. A programme of phasing would need to be agreed, in order to limit possible cumulative impacts with the existing quarry. The water bodies would require surveying for the presence of Great Crested Newts. Surveys also required for birds from the nearby Special Protection Area likely to use the site for loafing, feeding, etc. Other best practice mitigation measures appropriate to sand and gravel extraction would be required.</p>							
Additional Comments							
<p>The current Roose Quarry now has a 10 year lease, and mineral extraction in the additional area is supported by the landowner. This assessment assumes that the allocation would be brought in the short to medium term to provide continuity of supply to meet the needs of the Barrow area and the south west of the county.</p>							

M5 – Land adjacent to High Greenscoe Quarry, Askam-in Furness (Copeland) – Area of Search: extension of mudstone quarry – area not identified

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		Score
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	The site location offers no scope for alternative transport modes.	0
SP3: To provide everyone with a decent home	-To help meet local housing need	✓	✓	✓	Inevitable	The site supplies raw materials for brick manufacture and while this is for a national market it has obvious benefits in terms of meeting local housing demand.	++
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	✓	✓	✓	Very likely	There are several dwellings within 250m of the site. The scale of impact is assessed as moderate due to the limited number of houses potentially affected. Some of these properties are likely to have been affected to some extent by working on the existing site but the proposed extension would reduce the distance to other surrounding properties. Some impacts should be capable of being mitigated with bunding and/or buffering though this may reduce the workable area, the available reserve and therefore the justification for the extension.	-
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport	?	?	?	Limited likelihood	A public footpath runs alongside the southern edge of the eastern extension. This may result in impacts on local users and necessitate safety measures to prevent access into the worked area.	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 	?	?	?	Limited likelihood	<p>County, national and international designations lie within 0.5 to 1.5km of the site with two of the former adjoining the proposed extension immediately to the south. Previously the operator proposed a small extension on the southern edge of the existing site which would have irreplaceably removed a County Wildlife Site and an area of ancient woodland; however, this part of the site will not now be excavated.</p> <p>Previous HRA has concluded there are no risks to any Natura 2000 sites while the remaining eastward extension would limit (but not necessarily eliminate) the risk of impact on other assets.</p>	?
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 	?	?	?	Uncertain likelihood though some specific impacts possible	<p>Workings will be visible from the high ground to the east.</p> <p>Impact on rural tranquillity will be limited insofar as the site is already an active working quarry, and extension would more likely affect the duration rather than the scale of impacts.</p>	?
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	√	√	√	Quite likely though varied	<p>The closest property is a listed building and visual impact mitigation may be necessary in the form of bunding around the site, which could impact the available resources to an unknown extent.</p> <p>Flood risk: the site is in the lowest flood risk zone but a drainage design will be necessary to limit the risk of run-off increasing risk of flooding and/or siltation on land and properties downhill to the west. Particular consideration may need to be given to the risks to the impact on the environmental assets in the area proposed for the southern extension.</p> <p>Impacts: allocation would continue the inevitable impacts of mudstone extraction but these should not increase provided the extension is worked once the existing reserves are exhausted. However extension will shift working closer to some properties and the effectiveness of existing mitigation may need to be reviewed.</p> <p>Environmental improvement; no opportunity with regard to built assets.</p>	(-)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development 				No impact	There is no scope to use non-road transport modes and assessment against other objectives has addressed possible dust impacts.	o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors						
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water	?	?	?	Limited if any likelihood	Previous assessment has concluded that extended workings would not have any impact on groundwater levels or quality in the vicinity of the site. The comments regarding flood risk (Objective EN3) are also relevant insofar as such events could provide a pathway for contaminating adjacent land by overland flow and/percolation and may need to be considered	?
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat				No impact	The plot is assessed as being low quality agricultural land and the restoration may therefore be for habitat creation and improvement to complement the cluster of assets in the immediate vicinity. Soil contamination appears unlikely provided existing mitigation measures are maintained and dispersal via other pathways (see EN2 and NR2) is prevented.	o
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working		√	√	Moderate	Extension will provide for continued supply of a resource to serve county and wider markets and therefore safeguarding the resource adjacent to existing workings is appropriate.	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment		√	√	Very likely, if not inevitable	Will protect jobs in the local quarrying sector and maintain the supply of building materials to support the local construction industry.	+
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact	Appears to offer no scope for job creation, and its rural location means it is not accessible by non-car modes. It may be accessible by foot or cycle if some employees live locally.	o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
The allocation, comprising an eastward extension of the existing brick-making mudstone quarry, will continue any existing impacts, bringing some of them closer to a listed building while, at the same time, increasing distance from other properties to the north and west that will have been affected by existing working. The area has, however, been noted as a strategic resource in Policy SP8, which reflects its potential importance in the supply of high quality brick to local and national markets, although a justification of need may be required to support further extension in the light of the potential impacts. The proximity of the quarry to human and wildlife assets necessitates a range of mitigation measures, some of which will reduce the workable area.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified Cumulative impacts: none identified provided the extension is only worked once the existing reserves are exhausted. Synergistic: very significant scope for habitat creation and improvement given the cluster of existing important assets around the site.							
Mitigation Proposed							
Existing mitigation measures should be sufficient to deal with operational impacts though a future planning application will need to provide evidence to this effect. Additional survey may be needed to check for use or occupancy of the extension land by any of the various local protected species. Visual mitigation of impacts on the listed farmhouse to the east will be necessary and it would be advisable to evaluate the effect of water drainage off the site onto adjacent land if this has not been done already.							

M6 – Land between Overby and High House Quarries (Allerdale) – Area of search: extension for sand and gravel extraction (long-term)

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a √ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		Score
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	Location of the sites provide no scope for alternatives to road movement	0
SP3: To provide everyone with a decent home	-To help meet local housing need			(√)	Very likely if indirect	As with other aggregates sites, the site can contribute to maintaining the supply of sufficient primary aggregate to meet needs in the northwest of the county.	(+)
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people			√	Limited likelihood	The proposal gives significant advance notice to local communities of the possibility of further working at this site. The site is distant from human sensitive receptors and provided working begins after one or both of the existing quarries has closed it is reasonable to expect that cumulative assessments would be no greater than those experienced at present provided there is appropriate best practice mitigation.	(+)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact		0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 			√	Quite likely	<p>There is scope for contamination (through dust-blown siltation) of local water courses that feed into the various Solway Firth designations, while BAP priority habitats that may draw on the same groundwater supply are closer to the site.</p> <p>Excavation would provide an opportunity for biodiversity enhancement and/or priority habitat creation that could extend the proposals in place for the existing quarries unless restoration to agricultural land is a priority.</p>	+/-
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 			√	Limited likelihood	<p>There is unlikely to be any additional visual impact provided the scale and elevation of operations is no different from that in the existing quarries and provided the search area is only worked once the other quarries are closed and in the final stages of restoration. Existing workings establish the planning context for aggregates working in this rural area and therefore extended working should have no additional impact provided it is on a similar scale. As a result of the lack of adverse impacts performance against this objective is assessed as mildly positive.</p>	(+)
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 			√	Limited likelihood against all criteria	<p>May require archaeological survey to establish whether there are any ground-level assets but there is no indication of direct impact on other heritage assets other than that which may result from lorry movements through nearby settlements that may contain such designations. The Hadrian's Wall WHS visual impact zone is over 800m away and shielded by an intervening ridge.</p> <p>The site is in the lowest flood risk zone though site drainage design will need to ensure that there is no risk of runoff onto adjacent land while also addressing contamination risks to nearby open watercourses.</p> <p>The site would only be developed to meet long-term aggregates requirements once the other two quarries are nearing exhaustion. If operating as a single site it is therefore likely that the overall impacts would be lower than the cumulative ones from two sites being worked fairly close to one another. It is not clear whether scope exists to alter the preferred routeing of lorries through the local rural road network to reduce any current impacts though clearly this would only shift them rather than eliminate them.</p> <p>Any opportunity to enhance the rural environment lies principally with scope for biodiversity enhancement provided the priority is not to return the site to agricultural use.</p>	+/(-)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development 				No impact	Any impact on dust, etc. is likely to be no worse than from the two existing sites and the location provides no scope for modal shift.	o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors						
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water			√	Quite to very likely	Possible risk primarily to open watercourses rather than groundwater which feeds into SAC, SPA and Ramsar sites in the Solway Firth, and to other nearby national and local designations. Mitigation should be appropriate to the scale of the risk given the distance of the site from most of these designations.	-
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat			(√)	Depends on restoration	Land appears to be good quality agricultural land that will be removed from productive use during extraction. As a result restoration to this use may be the priority though this may need to be informed by, and consistent with, the restoration proposals for the two existing quarries.	?
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working			(√)	Quite likely if some way in the future	The site will provide for continued supply of aggregates to markets in the northwest of the county and will help maintain the landbank. Allocation provides an appropriate level of safeguarding and advance warning of the possibility of workings.	(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment				No impact	Development would occur sometime in the future and only if the other quarries cannot meet the required landbank resources. It appears more likely that extraction would shift from the worked-out quarries and that this limits the scope for new jobs. (See also comments under Secondary impacts in the summary.)	o
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact	The rural location of the site suggests employees would need a car to reach the site. (However this is assessed as neutral if they have been previously working on one of the other two quarries.)	o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
The sustainability of this site for future extraction of sand and gravel, is justified primarily by the operation of existing quarries to the northeast and southwest, which demonstrate that local impacts are capable of being mitigated effectively and that the location is an important source of aggregate available to markets in the north of the county. The County Council must meet its landbank requirements for the forthcoming seven years, but there is no reason why sites cannot be allocated with the aim of maintaining the landbank in the longer term, though there should be some subsequent review of which ones are the most sustainable locations. Nevertheless, this allocation provides flexibility in safeguarding a location to provide scope to deliver additional resource in the event that reserves at existing sites peter out, or that there is an unanticipated increase in aggregate sales during the Plan period. It is considered appropriate to safeguard the site, insofar as this also provides notice of possible extraction in the longer term, and it is not evident that this has a substantial blighting impact on the surrounding area.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: as with other aggregates sites, this one can contribute to the supply of local aggregates supporting the local construction/development sectors. Cumulative: impacts should decline if the site is worked after the other two quarries have closed or if one of them remains open. In the event that it has to be developed while the other two sites are operating the planning application will need to pay particular attention to cumulative impacts in terms of road traffic, emissions, dust and noise. Synergistic: none							
Mitigation Proposed							
Provided the previously stated assumptions are correct mitigation should be that provided for the existing workings (assuming this addresses all the impacts identified above). This is assumed to include use of buffering, bunding, visual screening, noise suppression on compressors and other equipment, wheel washing and dust suppression during dry periods, etc. Specific mitigation will be needed to deal with impacts on Hards Farm which lies beyond the southeast edge of the allocation.							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Additional Comment							
Mitigation of on-site impacts could be helped by use of conveyor belts though this appears to mean part of one of the existing sites which provides access to the local road network would have to remain open to enable the removal of aggregate from the site without the need to build a new haul road specifically for this purpose. A planning condition may be necessary to prevent extraction beginning until such time as one or both of the existing quarries is nearing exhaustion in order to limit cumulative impacts, though the condition should allow this to occur if the extra capacity is needed to maintain the sand and gravel landbank.							

M8 – Land adjacent to Cardewmires Quarry (Carlisle) – Area of search: extension for sand and gravel extraction (long-term)

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport				No impact		0
SP3: To provide everyone with a decent home	-To help meet local housing need			(✓)	Very likely if indirect	As with other aggregates sites, the site can contribute to maintaining the supply of sufficient primary aggregate to meet needs in this part of the county. However outputs from the existing site are forecast to last throughout almost all of the Plan period so the material from the new site is not required in the immediate future though it can supply housing and other development projects in the longer term.	(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people			?	Limited likelihood	The site is in a rural location some distance from human sensitive receptors, the nearest of which is Cardew Hall and Farm (400m to the southwest) and the western end of Dalston (300m from the very eastern edge of the site).	?
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact		0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources			(√)	Limited likelihood	There are limited biodiversity designations within the vicinity of the site. The River Eden & tributaries SAC is over 1km away and there are other sources of potential impact on the land in between. Previous assessment refers to the possibility of BAP grassy marshland habitat within the site, so this may need a survey when a planning application is submitted. Ecological and possibly Phase 1 habitat survey would be prudent to check for use of the site by protected species and to consider scope for restoration as this site – though currently in agricultural use – is not high quality land. As parts of the existing site are currently restored as open water bodies it is assumed that restoration as wetland may be feasible as there does not appear to be a conflict with the Carlisle Airport safeguarding zone.	?
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity			√	Limited likelihood	There are no landscape designations in the vicinity and the site itself is not in a designation. Development will result in an inevitable intrusion into currently open agricultural land. The possibility of removing materials by conveyor under the railway land to handling and despatch facilities in the existing site could limit the need for structures on the new site, limiting visual intrusion to some extent.	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 			√	Limited likelihood against all criteria	<p>Historical environment: Dalston Conservation Area is over 700m away and it is difficult to see that the development could have an adverse impact on its setting from this distance.</p> <p>Flooding: parts of the site are in risk zones 2 and 3a; however, this aggregate extraction is water-compatible, that has the potential to provide temporary or, depending on restoration priorities, permanent flood risk mitigation through water storage.</p> <p>Impacts: as with all minerals and waste developments some adverse impacts are inevitable. Apart from the sensitive receptors identified in assessment against objective SP5 there appears limited scope to generate widespread impacts provided that best practice mitigation is applied. The new site has no direct access to the road network but the use of conveyor belts can limit the generation of new road impacts. In general impacts are only likely to be significant if the site is worked at the same time as the existing quarry but it is understood this is not the owner's intention.</p> <p>Environmental enhancement: there is potential scope for improvement of the site through biodiversity enhancement provided this has a higher priority than restoration to agricultural use.</p> <p>(Collectively these assessments are more positive than negative though the latter have to be acknowledged.)</p>	+ / (-)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 				No overall impact	<p>Dust emissions are a likely consequence of extraction and transport of aggregates but this can be mitigated using appropriate measures such as dust suppression, routeing agreement, etc.</p> <p>As noted previously there appears to be little scope to remove material using the railway line but there is scope to avoid new road impacts on Dalston by moving material on conveyor to batching and despatch facilities on the existing site.</p>	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water			√	Quite to very likely	Earlier HRA has concluded there is limited risk of impact on the River Eden and Tributaries SAC. Nevertheless the site contains several field drains and is bisected by Gill Beck. There are risks of siltation of these features by material washed off or blown from the site and the site design will need to ensure existing drainage patterns are maintained as these watercourses serve other agricultural land that will continue to be in agricultural use.	-
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat			(√)	Depends on restoration	Degradation: there is scope for material blown off the site to be deposited on adjacent land. While this may not be contamination it should be avoided nevertheless. Improvement: land does not appear to be good quality agricultural land and therefore there is scope to restore for biodiversity improvement, possibly as BAP priority habitat appropriate to this part of the county.	+/-
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working			(√)	Quite likely if some way in the future	The site will provide for continued supply of aggregates to markets in the north of the county and also help maintain the landbank. Allocation provides an appropriate level of safeguarding and advance warning of the possibility of workings. The site is also conveniently located to supply aggregates to the local district (and possibly neighbouring parts of the county).	+
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment				No impact	Development would occur sometime in the future and only if the other quarries cannot meet the required landbank resources. It appears more likely that extraction would shift from the current site; this limits the scope for new jobs. (See also comments under Secondary impacts in the summary.)	o
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in				No impact	The site is a little distance from Dalston with no direct access (though a cycle route runs down the eastern edge of the site. The location site suggests employees would need a car to reach the site. (However this is assessed as neutral if they have previously worked on the other half of the quarry.)	o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	areas of greatest need						
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		0
Summary of Assessment							
<p>The sustainability of this site for future extraction of sand and gravel, is justified primarily by the operation of the existing quarry, which demonstrates that local impacts are capable of being mitigated effectively and that the location is an important source of aggregate available to markets in the north of the county. The County Council must meet its landbank requirements for the forthcoming seven years, but there is no reason why sites cannot be allocated with the aim of maintaining the landbank in the longer term, though there should be some subsequent review of which ones are the most sustainable locations. Nevertheless, this allocation provides flexibility in safeguarding a location to provide scope to deliver additional resource in the event that reserves at existing site peters out, or that there is an unanticipated increase in aggregate sales during the Plan period. It is considered appropriate to safeguard the site, insofar as this provides notice of possible extraction in the longer term, and it is not evident that this has a substantial blighting impact on the surrounding area.</p> <p>Impacts are likely to be comparable to those created by the existing workings, though a planning application will need to demonstrate that mitigation applied to the existing workings are capable of dealing with the impacts of workings slightly closer to properties in Dalston. There is scope to reduce local impacts by using conveyor belts to move aggregates to despatch points on the existing site, and the relatively poor apparent quality of the existing land gives scope for restoration alternatives including BAP priority habitat or possibly additional wetland, to complement that on the existing site. The planning application will need to pay particular attention to the drainage design of the site, to ensure continued free flow of uncontaminated water through the local field drain and stream system, while also maximising the scope for the site to provide temporary – or possibly permanent – flood storage.</p>							
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: as with other aggregates sites, this one can contribute to the supply of local aggregates supporting the local construction/development sectors.</p> <p>Cumulative: impacts should decline if the site is worked after the other half of the quarry has closed. In the event that excavation starts while the existing site is being worked the planning application will need to pay particular attention to cumulative impacts in terms of road traffic, emissions, dust and noise.</p> <p>Synergistic: none</p>							
Mitigation Proposed							
<p>Provided the previously stated assumptions are correct mitigation should be that provided for the existing workings (assuming this addresses all the impacts identified above). This is assumed to include use of buffering, bunding, visual screening, noise suppression on compressors and other equipment, wheel washing and dust suppression during dry periods, etc. Specific mitigation will be needed to deal with impacts on Cardew Hall which lies beyond the southwest edge of the allocation.</p>							
Additional Comment							
<p>A planning condition may be necessary to prevent extraction beginning until such time as the existing quarry is nearing exhaustion in order to limit cumulative impacts, though the condition should allow this to occur if the extra capacity is needed to maintain the sand and gravel landbank.</p>							

M10 – Land adjacent to Silvertop Quarry, Brampton (Carlisle) – Area of search: extension of limestone quarry – area not identified

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		Score
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		o
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	The site location offers no scope for alternative transport modes.	o
SP3: To provide everyone with a decent home	-To help meet local housing need		✓	✓	Very likely	The site can maintain the supply of construction materials to serve local housing needs.	++
SP4: To improve the level of skills, education and training	-Education and training				No impact		o
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				No impact	There are no human sensitive receptors in the immediate vicinity (nearest house is 300m distant) and it is not evident that the site is crossed, bounded or close to public rights of way or recreational areas. Mineral workings will create noise, dust and other impacts but it is assumed those generated by the extension will be no greater than impacts from the existing workings.	o
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact	There is no indication of impacts on recreation or similar land uses. Impact on heritage assets is considered under Objective EN3.	o
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources		✓	✓	Limited likelihood	The site is agricultural land and may be used or occupied by nationally and/or locally protected or priority species in the vicinity. Previous HRA has concluded there is no risk of adverse impacts to Natura 2000 sites in the vicinity.	(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 		√	√	Very likely	<p>The site lies within an area of landscape sensitivity; excavation is unlikely to be problematic as it is part of an existing quarry and of limited area.</p> <p>The site is adjacent to but not within the Hadrian's Wall Visual Impact Zone but would not appear to create impacts different to those experienced already, though this may require further assessment.</p>	(-)
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 		√	√	Quite likely	<p>Heritage assets: impact on the WHS is addressed above though there are records of archaeological assets in the vicinity and further desk (and possibly field) research may be necessary.</p> <p>Flood risk: the site is in the lowest flood risk area and the main issue will be drainage of the excavated area and any implications this has for discharge consents to adjacent watercourses.</p> <p>Impacts: the site is remote from sensitive receptors and excavation of the extension is not expected to result in an increase to existing impacts. This will also prevent any increase in off-site impacts from removal of crushed rock by road.</p> <p>Environmental enhancement: not appropriate with respect to built facilities</p>	(-)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 				No impact	There is no scope to use non-road transport modes and assessment against other objectives has addressed possible dust impacts.	o
NR2: To improve water	-Adequate protection for waterbodies and the marine		?	?	Limited if any	A small watercourse (probably a drainage ditch) runs along the southern edge of the extension but this should not be affected by	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
quality and water resources	environment and promote the efficient use of water				likelihood	excavation below ground level unless that interferes with groundwater supply. There are no other natural open waterbodies in the immediate vicinity and therefore any adverse impact appears unlikely.	
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat				No impact	The plot is assessed as being low quality agricultural land and the restoration may therefore be for habitat creation and improvement. Soil contamination appears unlikely as workings will be below ground level, a risk would only arise in extremely windy weather, and could be addressed to some extent by normal dust suppression measures.	o
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working		√	√	Moderate	Extension will provide for continued supply of crushed rock to serve markets in this part of the county and therefore safeguarding the resource adjacent to existing workings is appropriate.	+
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment		√	√	Very likely, if not inevitable	Will protect jobs in the local quarrying sector and maintain the supply of building materials to support the local construction industry.	+
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact	Offers no scope for job creation and its rural location means it is not accessible by non-car modes. It may be accessible by foot or cycle if some employees live locally.	o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		0
Summary of Assessment							
This allocation is a small scale extension of an existing operational limestone quarry, which provides a unique supply of crushed stone for this part of the county. It is assumed to be worked once the existing reserves are exhausted and, therefore, has limited potential to increase existing impacts of quarrying in the area, though impacts will be prolonged for a modest period. The principal adverse impacts can be addressed through best practice mitigation, though some matters will need further evaluation.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified Cumulative impacts: none identified provided the extension is only worked once the existing reserves are exhausted. Synergistic: scope for habitat creation when the site is restored, possibly reflecting UK, county or local priorities.							
Mitigation Proposed							
Existing mitigation measures should be sufficient to deal with operational impacts though a future planning application will need to provide evidence to this effect. Specific mitigation may be needed to address localised impacts on protected species and the WHS (visually) and additional surveys (and mitigation proposals as necessary) will be required in support of any future application.							
Additional Comments							

M11 – Area of Search, LAND ADJACENT TO Kirkhouse sand and gravel quarry, near Brampton

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact), this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	There is no scope for alternative transport, although this is a generic issue for many minerals sites. Nevertheless, the site is well connected between Carlisle and Brampton, which may promote a sustainable option to commute.	0
SP3: To provide everyone with a decent home	-To help meet local housing need	✓	✓	✓	Very likely	It is estimated that the remaining reserves at Kirkhouse will be exhausted before the end of 2023. The sand extracted is manufactured to produce a variety of fine aggregates including for use of building, plastering concrete and asphalt sands. The extension of the existing site would provide material to meet housing needs in the local and Carlisle area.	+
SP4: To improve the level of skills, education and training	-Education and training		✓	✓	No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	✓	✓	✓	Very likely, possibly inevitable	The additional area proposed for mineral extraction would increase the exposure of nearby residents in Farlam to noise and dust emissions. Extraction would be likely to either extend the duration, or increase intensity of the impacts. Relevant industry standard mitigation measures (buffering and/or bunding, possibly with vegetation screening) would be necessary.	-(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	<ul style="list-style-type: none"> -community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport 				No impact		0
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 		√	√	Inevitable	<p>There are no significant designations (i.e. SSSIs, SACs, SPAs etc.) present on or in close proximity of site. However, there is a stretch of woodland in the allocation to the north west, which is designated as National Inventory of Woodland and Trees. In addition, there is a small stretch of priority habitat – deciduous woodland in the same area. The woodlands may have potential for foraging/commuting bats, a European protected species – and further ecological surveys would be required.</p> <p>Desk based assessment has confirmed that this a popular area for a variety of farmland birds including black grouse, curlew, grey partridge, lapwing, redshank, snipe, tree sparrow and yellow wagtail. The extension of the quarry will inevitably have some impact on the receptors identified; appropriate mitigation will need to be implemented.</p>	-(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 	√	√	√	Very likely	Some visible impact is inevitable from neighbouring villages such as Farlam and Kirkhouse, although the area has already been used for extraction previously, so to some degree this may be accepted as an appropriate land use. The visual impacts from Talkin Tarn Country Park should be minimal as the lake is surrounded by Tarn Wood. Ground-level impacts can be addressed by bunding or vegetation screening that can be planned as part of the restoration of the site. Extraction from near the ground surface should not require plant that will be visible over long distances and there should only be low buildings (e.g. temporary accommodation for the site office on the site).	-
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 		√	√	Limited likelihood	<p>There are no designated built heritage assets on site, the nearest are listed buildings in Farlam and Kirkhouse.</p> <p>The majority of site is in a low flood risk zone, the exception being in the northern part of site where a ford runs parallel to and is an area of medium to high risk. The extraction area will allow any overland flow to accumulate, implying that there is unlikely to be a risk to adjacent land and property.</p> <p>There is evidence that this is the best and most versatile agricultural land, so restoration to agriculture may be a priority.</p>	0
NR1: To improve local air quality and reduce	-Control dust emissions	?	?	?	Quite likely	Workings clearly have the scope to increase dust emissions from extraction and landfill and traffic movements. Road transport is	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
greenhouse gas emissions	<ul style="list-style-type: none"> -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 					<p>the only option for moving material off the site. By extending Kirkhouse Quarry, particularly if the intensity and output of the site was increased, the potential for dust emissions to reach sensitive receptors in Farlam increases.</p> <p>The site does not fall within an Air Quality Management Area (AQMA).</p>	
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water				No impact	There is one small pond located on site. The main potential risk is from dust contamination (resulting in siltation) of water sensitive habitats and designations in the vicinity of the site, but this should be capable of being mitigated using standard measures.	(-)
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 		√	√	Very likely	There is 60% likelihood that the site is Best and Most Versatile agricultural land, and the topsoil should be stored to enable restoration to this use. Any loss could be compensated by ecological and other benefits from alternative restoration proposals for the site.	(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working 	√	√	√	Very likely	The site provides sand and gravel, and an additional Area of Search assists in maintaining the landbank for Cumbria.	+(+)
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 	?	?	?	Very unlikely	In order to reduce impacts, it may be necessary to phase working of the rest of this site and this would limit the scope for new jobs to be created.	0
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No impact	See above.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		0
Summary of Assessment							
<p>This site has been proposed for an extension to the existing extraction of sand and gravel. The two proposed Areas of Search constitute an extensive area; further geological and environmental assessments would be undertaken, in order to define a more specific area, prior to the submission of any planning application. Consideration could be given to excluding that part of M11 through which Milton Beck flows, which is in flood zones 2 and 3, although sand and gravel extraction can be water compatible. The Areas of Search are greenfield and there are significant areas of UK Priority Habitat semi-natural woodland nearby; therefore, a restoration scheme appropriate to this distribution should be considered.</p> <p>The existing quarry is well located to the road network, with good access to the A689 and A69. Access to the newly proposed areas would be via the existing quarry access, as the minor roads to the south of M11 are narrow.</p> <p>The closest residential properties, including three Grade II Listed Buildings, are in Farlam, less than 330m south of the site. The site is approximately 750m from the North Pennines AONB, which lies in higher ground to the south and east; therefore, landscape and visual impact assessment is likely to be required.</p>							
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: as with other aggregates sites, this one can contribute to the supply of local aggregates supporting the local construction/development sectors.</p> <p>Cumulative: impacts should decline if one of the Areas of Search is worked after the other parts of the quarry are exhausted. In the event that it has to be developed in tandem, the planning application will need to pay particular attention to cumulative impacts in terms of road traffic, emissions, dust and noise.</p> <p>Synergistic: none</p>							
Mitigation Proposed							
<p>Existing mitigation measures should be sufficient to deal with operational quarrying impacts, though a future planning application will need to provide evidence to this effect. This is assumed to include use of buffering, bunding, visual screening, noise suppression on compressors and other equipment, wheel washing and dust suppression during dry periods, etc. A programme of phasing would need to be agreed, in order to limit possible cumulative impacts with the existing quarry. Surveys may be needed to check for use or occupancy of the land by any of the various local protected species. Mitigation may be required for loss of woodland.</p>							
Additional Comment							

M12 – Roosecote Quarry (Barrow) – Area of Search for new sand and gravel extraction – area not identified

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a √ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	There is no scope to use alternative modes to remove material from the site	0
SP3: To provide everyone with a decent home	-To help meet local housing need		√	√	Very likely	The site can contribute to maintaining the supply of sufficient primary aggregate to meet needs in the southwest of the county.	+
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people		√	√	Very likely	The closest human receptors are in Roosecote approximately 200m to the northwest and some visual mitigation may be necessary due to the elevated position of the site. Otherwise the location implies movement of aggregate past the properties and through the major road network via the south east corner of the town. Noise, vibration, emission and dust impacts would result though it is not clear that they would exceed those experienced from the existing workings unless both parts of the wider "Roose" site are being worked at the same time.	-
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact		0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 		(√)	(√)	Limited likelihood	<p>Previous HRA concluded there is no risk of impact on the Morecambe Bay SAC (although best practice mitigation of dust blow-off risk and appropriate drainage design would still be required). Similar mitigation measures are necessary to limit any risk of contamination to nearby county wildlife sites and the effect of excavation on local water table levels and water-sensitive wildlife sites may need further investigation.</p> <p>Although the site offers some potential for restoration to provide biodiversity improvement it appears to be good quality agricultural land and restoration to this use would be a priority.</p>	(-)
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 		√	√	Quite likely	The site is not remote but is semi-rural. It is in a more elevated position in the surroundings compared to the existing site and some mitigation (bunding) may be necessary to limit the visual impact when viewed from the north and east.	-
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriate development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 		√	√	Quite likely	<p>There are some ground-level heritage assets in the vicinity that require a survey as part of a planning application, and possible mitigation. It would be prudent to require a future planning application to propose possible mitigation of impacts on Moor Head Cottages in the event that the properties are to be renovated and re-occupied while the site is being worked.</p> <p>The site is in the lowest flood risk zone but a site drainage plan would be necessary to mitigate any risks of material being washed off the site onto adjacent agricultural land and to assess the impact of working on local groundwater levels.</p>	(-)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of 		?	?	Quite likely	<p>As with other minerals sites, there is inevitable scope for dust and other missions from extraction and vehicle movements but these can be controlled with best practice mitigation and limited if this site cannot be worked until the existing site to the west is no longer operating (i.e. to avoid cumulative impacts).</p> <p>Movement of materials by other modes is not possible.</p>	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors						
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water		√	√	Limited likelihood	The nearest open flowing water is Sarah Beck about 250m to the northeast (and downhill) of the site. There are ponds in the curtilage of the existing site and on the east side of Roosecote. As noted in other parts of the assessment a more important consideration may be the scope to affect groundwater and surface water movements and its effect on water levels and movement of contaminants off the site. These matters would need to be addressed at the planning application stage.	-
NR3: To restore and protect land and soil	-To reduce contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat		(√)	(√)	Inevitable but impermanent	Development would take good quality agricultural land of which around 2/3rds appears to be in arable use and the rest unoccupied pasture. This loss would not be permanent and there would be scope to return the site to its original use if and when extraction ends.	(-)
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working		√	√	Very likely	The site has the potential to maintain the supply of aggregate to the local area in the event that the existing sand quarry has to close and its allocation at this stage safeguards its potential use.	(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment		?	?	Limited likelihood	The purpose of the site is to provide a contingency in the event that Roose Quarry closes and therefore it is likely jobs would be re-located if this occurs, with no increase in employment. (See additional comment under Secondary impacts in the summary section.)	o
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need		?	?	Limited (probably no) impact	Comments as above. It is also unclear whether the site is served by regular public transport so employees may need a car, impacting the scope for sustainable commuting.	o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
<p>This site is assessed as largely sustainable, provided that it is initiated only to compensate for the cease of capacity at the existing, operational Roose Quarry. If they were to operate simultaneously, this assessment would change substantially, as this outcome would give rise to cumulative impacts affecting noise, dust, traffic, vibration and possibly visual impact. Its main advantage is judged in planning terms, insofar as it provides a contingency to maintain a supply of aggregate to serve the Furness peninsula and the south west of the county.</p> <p>The site occupies a more elevated position than the existing Roose Quarry, and this will require re-assessment of the efficacy of any existing mitigation measures, which should not just be transferred without review. Specific issues include visual impacts on Roosecote hamlet and the land to the northeast, and the implications of its elevated location on ground and surface water movement onto surrounding land. Extraction would result in the temporary loss of a modest area of good quality agricultural land, and would have to be justified on the basis of maintaining the county landbank of sand and gravel.</p>							
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: none identified.</p> <p>Cumulative: none identified provided a planning condition is applied to ensure that the site is only brought into use in the event that Roose Quarry closes prematurely (though it may be prudent to allow further review of this requirement during the Plan period).</p> <p>Synergistic: none identified.</p>							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Mitigation Proposed							
The key mitigation requirement would be a condition limiting scope to work the site simultaneously with the existing quarry in order to limit possible cumulative impacts and to avoid other possible issues raised by objectors in the past (including road safety implications of traffic moving from one site to the other across Rampside Road). Other best practice mitigation measures appropriate to sand and gravel extraction would be required. Specific consideration should be given to site drainage and its impact on surrounding agricultural land and ecological assets.							
Additional Comments							
The current Roose Quarry is operated on constraints imposed on the site operator by the landowner. This assessment assumes that the allocation would not be brought into immediate use and that it would remain a contingency for as long as necessary until such time as it becomes clear that Roose Quarry can no longer contribute to the county's sand and gravel landbank. If it opens sooner the assessed impacts would also occur sooner – i.e. there is no obvious reason that they would vary over time.							

M14 – Land adjacent to Kirkby Slate Quarry (South Lakeland) – Area of Search: extension of slate quarry – area: 36ha

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices						0
SP3: To provide everyone with a decent home	-To help meet local housing need		✓	✓	Very likely	The site provides locally distinctive building materials.	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people		√	√	Quite likely	The nearest housing is 1km distant to the west although a fixed caravan park adjoins the existing quarry to the southwest, but with the extension sought within and beyond the eastern edge at a distance of about 750m. The size of the quarry implies it predates establishment of the caravan park and therefore there have been inevitable impacts of extraction in this area over a substantial period, which further extension will continue without any likely increase. Assessment against this objective is given a mildly negative score to reflect these impacts, but this is intentionally conservative and any existing mitigation measures should be capable of limiting such impacts, if they exist.	(-)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				Some likelihood (but very indirect)	The site supplies local, regional, national and international markets. It provides a supply of a locally distinctive building material, which is used to maintain local character in new or renovated buildings. There are public rights of way crossing the high ground to the east of the existing quarry and the impact on them, and need for re-routing will need further investigation.	(+)
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources		(√)	(√)	Limited likelihood	There are a number of ecological designations in the vicinity of the site though most of the extension lies within the area covered by the permission for existing quarry operations. Extension would involve a minor expansion of the site eastwards though this is limited by the wind farm on the high ground to the east of the site. The site already contains part of the Kirkby Moor SSSI (heather moorland and other varied habitats). The extension will take some land which appears to provide this habitat and since most of the SSSI is currently in 'Unfavourable recovering' condition there is scope to contribute to habitat improvement through restoration proposals if these are not already covered by those for the wider site. There may also be scope to designate a RIGS within the quarry. Although some limited adverse biodiversity impact may occur while the area is being worked the overall potential is considered to be positive.	+/(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 		?	?	Limited likelihood	<p>This proposal is a limited extension of an existing well-established quarry and therefore the visual impact of working over a slightly wider area appears to be limited. It appears to offer limited risk of creating new impacts and the additional area to be worked outside the existing permission is small, further limiting the likelihood the existing impacts would affect new areas.</p> <p>The National Park boundary is 1km to the north but the extension would not create any new adverse visual impact.</p>	?
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 		(√)	(√)	Limited if any adverse likelihood	<p>The site is distant from sensitive receptors and mitigation requirements for the existing operations should be appropriate for working in the additional area.</p> <p>The nearest heritage asset is over 1.5km distant and, again, it is not evident that working the site would give rise to any new impacts.</p> <p>There is no identified flood risk, though consideration will need to be given to extending the drainage plan for the existing site to provide appropriate mitigation (collection/dispersal) of run-off in the extension area.</p> <p>Various impacts are inevitable as a result, but these should not be any greater than those from the existing workings.</p> <p>There is no scope to improve the built environment within this rural area.</p>	?
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 		(√)	(√)	Limited likelihood	<p>The location of the site gives no obvious scope for sustainable transport using alternative modes and it is not clear that it has any implications for the other assessment criteria.</p>	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water		(√)	(√)	Limited likelihood	There are two open waterbodies at the northeast side of the quarry that are described as reservoirs on OS maps and a spring at the western edge of the wider site. Both appear to offer the risk of potential contamination of water and potential risk of siltation by blown dust would need to be addressed in mitigation measures (assumed these are established for the wider site).	-
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat				No impact	It is not clear if the extension would affect any of these criteria and the area lying outside the existing quarry is assessed as low quality agricultural land. The restoration priority would therefore be that identified in the assessment against objective EN1.	o
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working		√	√	Very likely	The extension provides for limited extraction and safeguarding of a very distinctive mineral that cannot be readily substituted by secondary materials and which is in limited supply from other sources.	+(+)
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment		√	√	Very likely	Extension could provide scope to maintain employment levels in slate extraction in this part of the county, though there is no obvious scope for new jobs.	+
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact	No overall change and the relatively remote location makes it inaccessible using non-car modes.	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		0
Summary of Assessment							
This allocation is largely within the existing permitted slate quarry and includes a small eastward extension, which is limited by the wind farm on higher ground to the east. There is the potential to adversely affect the adjacent SSSI, if it is necessary to move into that area, but discussions have taken place with Natural England regarding compensation land, if required, to replace the mire that has formed adjacent to the windfarm access road. Extension of the quarry will provide for the continuing supply of slate, which may be for local (i.e. county-wide) use, to maintain locally distinctive design, or for a wider, national market.							
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: will contribute to securing longer-term supply of a type of material required to maintain local distinctiveness in building design while also indirectly sustaining employment in this sector of the mineral extraction industry.</p> <p>Cumulative: the site represents a limited extension of the existing permission and it appears unlikely it will result in any cumulative impacts with ongoing extraction on the main site.</p> <p>Synergistic: restoration potential for extended and improved SSSI habitat.</p>							
Mitigation Proposed							
No specific requirements other than the existing measures in use across the existing sites.							
Additional Comment							
The assessment assumes the scale of existing operations means that the extension would not be worked in the immediate future and therefore any impacts are assumed to begin at least 5 years into the Plan period. If extraction begins earlier the impacts would also occur earlier but without any changes to the assessment and comments.							

M15 – Land adjacent to Peel Place Quarry (Copeland) – Area of search: extended sand and gravel extraction – area not identified

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		Score
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	There is no scope for alternative transport, although this is a generic issue for many minerals sites.	0
SP3: To provide everyone with a decent home	-To help meet local housing need	✓	✓	✓	Very likely	The quarry is one of only two sources of construction standard aggregates in the SW of the county and therefore provides a local source of material for any expansion or regeneration in this and adjacent districts. Without this source aggregates would have to be moved over longer distances raising costs.	++
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	✓	✓	✓	Very likely, possibly inevitable	Extended working would continue the exposure of residents in Hallsenna and the farms surrounding the quarry to the effects of extraction. However the proposed allocation shifts working away from the greater concentration of residential properties surrounding the existing workings with the main impacts being on High House Farm and occupants of the caravan park on the east side of the A595. Relevant industry standard mitigation measures (buffering and/or bunding, possibly with vegetation screening) would be necessary.	-(-)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact	(Impacts on the immediate community are addressed in assessments against other objectives.)	0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species	✓	✓	✓	Quite likely	Previous assessment identifies possible use of the site by protected species and there are risks of dust contamination of nearby BAP priority habitat and ancient woodland which necessitate use of dust suppression measures. A previous HRA has concluded there is no risk of impact to the more distant Drigg Coast SAC. The existing quarry contains a RIGS and there may be	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	-Enhancement of natural/ecological resources					scope to preserve further parts of the new workings if these are also of note.	
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity	√	√	√	Very likely	Some visible impact is inevitable along the edge bordering the National Park and since the site is overlooked from high ground to the east, though similar issues will have been considered in evaluating the impact of opening the existing quarry. The area simultaneously under working will affect the visual impact seen from the Park. However ground-level impacts can be addressed by bunding or vegetation screening that can be planned as part of the restoration of the site. Extraction from near the ground surface should not require plant that will be visible over long distances and there should only be low buildings (e.g. temporary accommodation for the site office on the site).	-
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area	√	√	√	Quite likely but some are localised	Heritage assets: main impact is on a listed building in Hallsenna however the extension is a greater distance from this property than the existing working and some protection with bunding or buffering could also be used. Flood risk: the site is in a low flood risk zone and the extracted pit will provide an area for any overland flow to accumulate, implying there is unlikely to be a risk to adjacent land and property. Impacts: some impacts are inevitable but these should be similar in scale to those from the existing working and therefore the main issue concerns the duration of impacts. Other environmental quality: the site represents an opportunity for restoration for biodiversity improvement. There is no evidence that this is the best and most versatile agricultural land so restoration to agriculture may not be a priority.	+/-
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change	?	?	?	Quite likely though difficult to define	Workings clearly have the scope to increase dust emissions from extraction and road movement of aggregate, which is the only option for moving material off the site. Nevertheless this is the only source of aggregates in this area of the county and therefore without it local developers would rely on distant (<60km) sources in the county that would probably have to be moved by road, creating far more extensive impacts, or by relying on sources outside the county.	+/(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	adaptation in the minerals and waste sectors						
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water				No impact	The main potential risk is from dust contamination (resulting in siltation) of water sensitive habitats and designations in the vicinity of the site, but this should be capable of being mitigated using standard measures.	(-)
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat	√	√	√	Limited likelihood	There is low probability that the site is high quality agricultural land, though the topsoil should be stored to enable restoration to this use if it is considered the priority. Any loss could be compensated by ecological and other benefits from alternative restoration proposals for the site	?
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working	√	√	√	Very likely	The site provides one of only two local sources of aggregates for the SW of the county.	+
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	?	?	?	Very unlikely	In order to reduce impacts it may be necessary to phase working of the rest of this site and this would limit the scope for new jobs to be created.	o
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in				No impact	See above.	o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	areas of greatest need						
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		0
Summary of Assessment							
<p>Extended working of this site is primarily justified because it is the only sand and gravel source in the south west of the county with the potential to maintain a consistent supply of material over at least part of the Plan period. Other allocations may provide alternative supply from new sources while the County Council has concerns that the only other local resource (Roose Quarry) cannot be relied on to provide a continuing supply of material.</p> <p>The assessment identifies a number of potential adverse impacts, though it should be recognised that they are assessed without mitigation, and the standard measures used to limit the impact of sand and gravel workings should be sufficient to limit or negate the impacts at this site. The main issue is the exposure of local residents to continued working in the vicinity recognising, however, that extraction is a relatively low-level activity and that noise suppression and other measures can be used to limit its audible impact. Although it is in a rural setting, the site is situated on the A595 and, therefore, has reasonable access to markets for extracted materials.</p> <p>Given the scope for additional impacts, it is expected that permission would require evidence of the scale of reserves to allow judgement of their importance in meeting the aggregates landbank against the implications of working the site on the surroundings. Consideration will need to be given to landscape and visual impacts, due to the site's proximity to the Lake District National Park.</p>							
Secondary, Cumulative & Synergistic Impacts							
<p>Secondary: locally supplied aggregates are likely to be cheaper than those brought from more distant sources in the county or outside it, and this may have an indirect benefit on the costs of new development or regeneration projects using this material, though the actual benefit may be difficult to identify even if it indirectly helps to sustain the local economy.</p> <p>Cumulative: none identified provided that this site is worked after the existing permitted plot is completely worked out.</p> <p>Synergistic: none identified</p>							
Mitigation Proposed							
<p>Impacts on surrounding and more distant sensitive receptors will require standard mitigation measures including: bunding, buffering and vegetation screening to limit visual, noise and some dust impacts; wheel washing and dust dampening of open areas during dry periods; restricting the height of any structures on the site to a single storey to limit visual impact; noise suppression on equipment; possible use of conveyors to move material around the site to reduce vehicle noise and emissions.</p> <p>It is assumed the existing workings use the road linking Hallsenna to the A595 for access and that this will continue to be used in conjunction with any conditions restricting the times of day, number and routeing of movements to and from the site. In principal this should not result in a worsening of impacts compared to those generated by the existing workings.</p>							
Additional Comments							
The size of the site is such that extraction may occur throughout the Plan period (which is the basis of this assessment). Also, it is not known at what level the aggregates occur, the depth of excavation and the implication this may have for restoration options.							

M16 – Holmescales Quarry, Old Hutton (South Lakeland) – Area of Search: extension of roadstone quarry – area not known

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		Score
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	(✓)	(✓)		Inevitable	There is no scope to use alternative modes and application to continue and extend operation of the quarry has been previously refused on the grounds of adverse accessibility and associated traffic/road safety concerns. The site is not the only regional source of this material and therefore scarcity of supply cannot take priority over transport concerns and this is reflected in the score.	(-)
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	✓	✓		Very likely	The proposed extension is about 250m east of the nearest properties in Holmescales though they would have been exposed to impacts before the quarry was mothballed. There is a single property a little closer to the northwest of the allocation. The main concern is that access from the site to the strategic road network involves lorries passing dispersed properties along the rural access roads and possibly some smaller settlement such as Endmoor, Gatebeck and Row End. However a routeing plan has been agreed which was in use when the site was last in operation.	(-)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport	(✓)	(✓)		Unclear, may only be limited likelihood	There is recreational area adjoining the existing mothballed quarry to the southwest. It is at the opposite end of the existing quarry from the extension - distance approx. 300m which includes a wooded area. This is likely to limit some impacts which may be primarily noise (from blasting and/or plant) and road movements leaving the site travelling south. No heritage impacts have been identified. The extension site appears to be poor quality, unused land, possibly used for informal recreation.	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN1: To protect and enhance biodiversity	<ul style="list-style-type: none"> -Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources 	√	√		Limited likelihood subject to further survey	A small number of designations (priority habitat, county wildlife site, etc.) lie within around 1km of the site however the scope for impact appears limited if workings involve excavating below current ground level as for the existing site. An important great crested newt habitat has been identified nearby though its location is unclear and is most likely to be in the land within the existing permission that was never excavated or beneath the woods surrounding the west and south sides of the site. The impact of the extension would need further consideration as direct impact is unlikely but excavation might impact groundwater levels around the site and this might affecting the newts' habitat. The existing quarry is a RIGS and it is not clear that the extension provides scope for any additional exposure to be designated.	-
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 				Limited likelihood	There are no landscape designations in the immediate vicinity and it is unlikely that the excavations would have a visual impact as the site is a considerable distance from the National Park boundary and would be below the level of the surrounding land.	0
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 	(√)	(√)		No impact	Road traffic leaving the site to the north would generate noise, vibration, dust and emissions impacts that could affect a limited number of listed buildings in Old Hutton and along the B6254 into Kendal. However these impacts may not occur if the previously-agreed routeing arrangement avoids this area, Other impacts are inevitable as a result of moving materials off-site by road.	-(-)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce 	√	√		Very likely if not inevitable	Dust emissions from excavation and road movements are very likely.	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors						
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water				No impact	There are no streams or drainage ditches in the immediate vicinity of the site and the likelihood of working below ground limits the scope for impacts if best practice mitigation is used. Assessment against objective EN1 has identified other impacts on the groundwater resources near the site (which are reflected in the score for that objective) and the impact on the two watercourses in Hide Wood to the west of the existing quarry may need to be assessed if this was not done previously for the existing quarry.	o
NR3: To restore and protect land and soil	-To reduce amount of contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat				No impact	The site occupies land of low agricultural value and therefore impact appears to be limited to possible risk of material blown-off the site onto land that is in agricultural use.	o
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials	✓	✓		Very likely	The site is acknowledged as a regionally important source of a particular material and restarting working on the extension would supplement other sources and secure some additional resource to meet demand within the county and adjacent areas.	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	-Support use of co-products from minerals working						
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√		Very likely	As the existing quarry has been mothballed it is assumed re-opening would provide some job creation though comments above about the duration of working the site should be noted.	+
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact	As above. The relative remoteness of the site implies access via non-car modes	o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
The sustainability assessment for this site turns on the relative priority that must be given to its potential to supply scarce, high-quality roadstone for the county (and the wider, regional market), and the potential impact of road movement of stone off-site, which has been of concern previously. Most of the adverse impacts are quite specific and need further consideration – road traffic impacts on properties in narrow roads along the access routes to the site; and possible impact of groundwater changes on a protected species nearby. However, it is assumed that working will be primarily below ground level and this will contribute to other industry-standard mitigation in limiting other impacts on the surroundings. Against this, it should be acknowledged that the amount of reserves at the site is not known, and that it is not the only source of this material within the county. This matter may depend on the extent to which the County Council rely on roadstone reserves at Ghyll Scaur and Roan Edge quarries in the county.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified. Cumulative: none as the previous quarry has been exhausted so there is no risk of the two sites operating simultaneously. Synergistic: possible scope for habitat creation during restoration. The existing site includes a RIGS and it is not clear if the extension would warrant a further designation.							
Mitigation Proposed							
Use of best practice mitigation measures in combination with excavation below ground-level should address most of the generic impacts resulting from re-opening of this site, and the comments above identify the more specific survey and mitigation requirements needed to address possible groundwater and inevitable traffic impacts.							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Additional Comments							
The extension is a modest increase on the extent of the existing quarry that was abandoned when the reserves were exhausted apparently prematurely. It is assumed the extension – if granted – would be worked for a maximum of 10 years although the identified impacts would continue without change if it was to be worked for a longer period.							

M30 – Land adjacent to Roan Edge Quarry (South Lakeland) – Area of Search: extension of high-quality roadstone quarry – area not known

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	There is no scope to use alternative transport modes although the site is better located with regard to the strategic road network than either of the other roadstone sources in the Plan.	0
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health, noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	?	?	?	Very limited likelihood	The site is remote from human receptors with the only potential impact being on users of the public footpath along the east side of the existing quarry, which would have to be relocated. The assessment score recognises the existence of the impact, but does not take account of the benefits of likely mitigation.	-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport				No impact	Recreational impacts are covered by the comments above.	o
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural / ecological resources				No impact	The nearest county-level designations are between 250m and 1km away, with the closest being on the opposite side of the M6. Any risk to the air environment may be mitigated naturally, as the site is in an exposed relatively upland location, which may help to disperse pollutants (though this does not obviate the need for appropriate mitigation of these impacts). Previous HRA has not identified any risk of impact on Natura 2000 sites.	o
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity	?	?	?	Limited if any likelihood	The site is in a relatively open semi-upland location. It may be visible from higher open ground to the east but its immediate surroundings are hummocky land which provides a degree of natural screening (the site is not visible from the A684) and the workings are below ground-level reducing their visibility. It is assumed the extension will have similar characteristics though it might be marginally more visible from the east (including the M6).	?
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area				No impact	There are no heritage assets in the vicinity of the site. Its remote location limits the impact of inevitable effects of quarrying which will be addressed with continued use of existing on-site mitigation measures. The site is in the lowest flood risk zone though note comments against Objective ON2 below.	o
NR1: To improve local air	-Control dust emissions -Sustainable transport of				No impact	Impacts from dust emissions from plant and traffic are addressed in other parts of this assessment.	o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
quality and reduce greenhouse gas emissions	<p>waste and minerals where feasible to help reduce emissions</p> <p>-Stimulate the development and application of clean/carbon efficient technologies</p> <p>-Energy from waste facilities and contribute to the use of renewable energy sources</p> <p>-promote climate change adaptation in the minerals and waste sectors</p>					There is no scope for alternative transport modes though, as noted above, the site is better located with respect to the strategic road network with access onto the M6 very close by and this should have some limited beneficial impact on emission levels.	
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water	?	?	?	Limited likelihood	Current extraction appears to be below ground level limiting the risk of contamination of adjacent waterbodies. Two small streams flow east from the land immediately to the north of the proposed extension, feeding into Killington Reservoir. Therefore it may be prudent to check the effect of extension on the local groundwater regime while using existing mitigation measures to prevent airborne contamination of any waterbodies with silt.	?
NR3: To restore and protect land and soil	<p>-To reduce amount of contaminated land in the area</p> <p>-Loss of high grade agricultural land and Greenfield sites</p> <p>-Potential to cause soil degradation, pollution</p> <p>- the use of peat</p>				No adverse impact	The site is not assessed as high quality agricultural land and therefore provides an opportunity for habitat creation or improvement that would presumably be consistent with proposals for the existing quarry. Dust blown off the site could cause contamination but this will be limited by appropriate mitigation; the open nature of the area may assist dispersal; and the poor quality of the land implies that any impact would not be significant.	(+)
NR4: To manage mineral resources sustainability and minimise waste	<p>-Reflect the waste management hierarchy</p> <p>-Promote the use of renewable forms of energy</p> <p>-Provide flow of minerals to meet demand within the area</p> <p>-Protect / conserve mineral resource from sterilisation as far as possible</p> <p>-Encourage use of</p>	√	√	√	Very likely	The allocation would sustain the supply of locally and national scarce material and it is therefore prudent to safeguard its availability also.	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	secondary aggregate rather than primary materials -Support use of co-products from minerals working						
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√	√	Very likely, if not inevitable	Assumed to support existing jobs in the local quarrying sector but not to create new ones.	+
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact	The site is in a remote location that is unlikely to be served by public transport or easily accessible by non-car modes.	o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
This site has the fewest apparent impacts among the proposed allocations. Its relative isolation limits most of the impacts on human receptors and it is located in a position sufficiently distant from possible natural receptors that maintenance of existing mitigation measures may be sufficient to deal with any impacts. It benefits from far better access to the strategic road network than the other proposed roadstone allocation, though it lacks access to alternative modes. It is also recognised as a locally and regionally important source of relatively scarce materials, and restrictions on extraction at other sources outside the county may increase its importance further, making allocation and safeguarding even more important. Impact on users of the right of way crossing the site is the only adverse impact identified; all others are either positive or absent.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified. Cumulative impacts: none identified provided the extension is only worked once the reserves in the existing quarry have been exhausted. Synergistic: scope for habitat creation when the site is restored.							
Mitigation Proposed							
Continuation of best practice mitigation used in the existing quarry should be sufficient to deal with the principal impacts. The bridleway/footpath running between the existing quarry and the							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
extension will need to be relocated, possibly permanently. Additional consideration may need to be given to the effect of additional below-ground level working on the groundwater regime and pattern of runoff down the slope to the east of the extension, and survey of the site to check for use by protected species may also be warranted.							
Additional Comments							
It is not evident how quickly the extension might be worked and it is has been assumed it will be sooner rather than later. Any change will delay the impacts but not alter their scale.							

M24 – Derwent Howe slag bank (Allerdale) – Mineral Safeguarding Area

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices				No impact	Despite its position there is no apparent scope to move material off the site seawards. The coastal railway line runs ca. 100m to the east but it is not clear that it is practicable to use it. Otherwise movement by road is necessary. Its contribution to recycling as assessed against Objective NR4.	0
SP3: To provide everyone with a decent home	-To help meet local housing need				No impact	This allocation is identified for safeguarding only.	0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors	✓	✓	?	Very likely, probably inevitable	The site has the scope to maintain existing impacts on adjoining land uses including housing along access routes and proposed development sites in the vicinity. However it must be recognised that certain planning applications have been granted in the period since reclamation began and at which time	(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	-Impact on the sense of well being of people					the County Council's policy position to safeguard the site was established. Given the prevailing wind direction, there is potential for dust/noise emissions to have an impact on residents to the east of the site. However, given the distance the residents are from site, this is not expected to be significant. In addition, there is no expectation that the whole slag bank will be extracted.	
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity the arts, heritage, dialect and sport	√	√	?	Quite likely	Continued extraction would limit access to some parts of the wider bank and may generate impacts on those using areas open to public access.	-
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources	√	√	?	Very likely	The short term impact is potentially adverse although, if practicable, it could be limited by phased working and restoration of the site so that any protected species using or occupying the site would be displaced for a limited period. However the ongoing restoration proposals provide scope for habitat creation and improvement in an area (and of a feature) that has been degraded historically by industrial activity; for this reason the overall assessment is judged to be positive.	+/-
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity	√	√	?	Quite likely	Extraction in an area partly open to public access will give rise to inevitable visual impacts. Continued extraction could be regarded as having an adverse impact on this part of the coast although it would continue an existing impact without necessarily worsening it. In the longer term restoration would have the scope to deliver permanent improvement of the area.	+/-
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriate development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use	√	√	√	Limited likelihood (but may be quite likely)	Heritage assets: non on the slag bank itself. Flood risk: the site is not in the highest flood risk zone (though areas of high risk are adjacent). It provides a substantial sea defence that would protect some of the adjacent development sites and continued extraction would need to be planned to ensure its integrity is not reduced. Impacts: these would not necessarily be increased provided the scale of the existing working is not expanded though there might be some marginal increase if working moves closer to receptors on the landward side. Enhancement: the effect is neutral insofar as continued working could provide scope for additional habitat and recreational improvements but these might be delivered through the existing restoration proposals if extraction stopped. Such benefits would be long-term irrespective of whether the site continues to	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	-Enhance the degraded urban and rural environment within the area					operate.	
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	?	?	?	Limited likelihood	There is no clear scope to use alternative transport modes and the extraction and road movement would contribute to continuing dust emissions, though both should be capable of being mitigated to an acceptable level.	?
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water	?	?	?	Limited likelihood	Main risk is contamination of coastal water by material blown off the site. The existing mitigation measures should be capable of limiting this impact and tidal wash may help to disperse any material	(-)
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce contaminated land in the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 	√	√	?	Limited likelihood of adverse impact	Extraction and restoration appears to be beneficial, though dust blow-off implies some potential risk of contamination of adjacent land (though it is not in agricultural use). Overall the assessment is mildly positive, although the site may offer limited risk if it is left undisturbed.	+/(-)
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as 	√	√	?	Inevitable	Continued extraction clearly generates secondary aggregates for use by local industry and safeguarding provides scope for this to continue.	++

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	far as possible -Encourage use of secondary aggregate rather than primary materials -Support use of co-products from minerals working						
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	√	√	?	Variable	Continued working would safeguard existing jobs without creating new ones.	(+)
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact	Any implications are covered by the comments above.	0
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification in the waste management and minerals sectors -Stimulate innovation and research in recycling and use of co-products	(√)	?		May be quite likely	Continued extraction may impact development proposals to the northern and southern end of the site though the site was being worked at the time these applications were submitted and therefore any potential adverse impacts should have been evident at that time.	?
Summary of Assessment							
This site potentially provides a source of certain types of secondary aggregate for which there is apparent local demand. The impact of safeguarding it is both positive and negative in roughly equal degrees. The scale of impacts and effectiveness of mitigation measures should not vary significantly over the current position, with the main impacts being noise, vehicle emissions and dust from operations and lorry movements. There is the risk of adverse impact on development sites at the north and south ends of the site; however, it is understood that these applications were submitted at a time when extraction was already occurring and the possibility that this would continue should have been taken into account in assessing the viability (commercially and in planning terms) of these proposals. Continuation of the current mitigation would limit the impacts of continued working, while also progressing towards the eventual closure of extraction and completion of a re-modelled artificial landform to provide natural habitat, recreational space and coastal defence. However, it is acknowledged that all these benefits could be delivered if the site is restored with no further extraction and, therefore, the assessment of the policy turns on whether demand for the recovered materials justifies any potential additional impacts in the short and medium term.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified as the principal impacts on adjacent land uses and development proposals, and on the benefits of restoring this site are considered to be direct impacts. Cumulative: none identified provided continued working does not increase road traffic via the main roads in the southern part of the town. Synergistic: it is not clear that continued excavation would create positive synergistic benefits in addition to those that are being delivered by the existing restoration proposals for the site.							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Mitigation Proposed							
Restrict the area under working at any one time to limit the scale of on-site (e.g. dust blow-off risk) and off-site (e.g. visual and traffic impacts). If not already in place, agree a boundary to the area for future extraction to provide a buffer between the area being worked and adjacent land uses and receptors, and to ensure the viability of the western side of the site for coastal defence is not compromised.							

SITES IDENTIFIED IN POLICY SAP5 FOR SAFEGUARDING OF EXISTING AND POTENTIAL RAILHEADS AND WHARVES**AL18 – Port of Workington Railhead & Wharfage – safeguarded**

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		o
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable if used	Maintains scope for diversion of minerals and waste from road transport and for despatch by sea either to continental Europe or elsewhere in the UK	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		o
SP4: To improve the level of skills, education and training	-Education and training				No impact		o
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	?	?	?	Quite likely if used, but also localised	Has the potential to reduce road-related impacts but could give rise to increase in traffic bringing material to/from the railhead. Assessment also assumes any existing restrictions on use of the railhead would apply to limit vehicle and train movements, noise, vibration and light impacts outside normal working hours.	+/(–)
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		o
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	resources						
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 				No impact	Railhead is within existing working port. There is a Conservation Area within 500m but the safeguarding would only result in a continuation of any impacts resulting from use of the railhead or wharfage.	o
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 				No impact	See comments above for potential impacts on heritage assets. Flood risk: site is in low flood risk area and protected by defences. Impacts: no impact provided there is no extension to the hours the railhead is used already.	o
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Inevitable if used	Some possible localised increase in dust emissions (without mitigation) but this would be offset by much greater reduction of such impacts if material is shifted off the road network. Clearly supports sustainable transport and use of alternative modes (recognising that rail and sea transport also generate greenhouse gases).	+(+)
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 				No impact	Assessment assumes existing controls would apply to limit water impacts from other use of the railhead.	o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 				No impact		o
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 				No impact		o
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 	(√)	(√)	(√)	Possible	Not clear that safeguarding specifically would help to retain jobs but continued or new use of the railhead could increase movements through the port, supporting its economic viability.	(+)
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No impact		o
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Summary of Assessment							
The allocation safeguards an existing railhead and the port, offering the prospect of both road-rail and road-sea transfer (though the latter is primarily a benefit of allocating the wider port estate). Provided use is limited to existing working hours (to avoid introducing new noise, light, traffic, etc., impacts on the surroundings), there are no evident significant adverse impacts. Any localised impacts in terms of additional traffic would be offset by greater benefits from reduced impacts across the county road network.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none Cumulative: depends on existing level of use of the facility, though the capacity of the railhead and the line into the port will limit the extent to which impacts could accumulate at a specific time. Synergistic: none (again, benefit of road/rail or road/sea transfer derives from allocating the port).							
Mitigation Proposed							
None provided use for minerals and waste purposes does not result in additional use of the facility outside existing hours as this would result in new noise, light, traffic, etc. impacts on nearby receptors.							

AL32 - Siddick potential rail sidings – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable if site is developed	Promotes sustainable transport of minerals and waste and intention would be to retain the sidings for other industrial use	++

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	√	√	√	Quite likely	Potential impacts on users of recreational facilities nearby though nearest properties are about 300m away. Development of the site would introduce new impacts to this area from additional rail movements and shunting. However the safeguarding is potentially linked to use for local minerals and waste activities which may already generate or which would give rise to road-related impacts if the sidings are not available.	(+)/-
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport	?	?	?	Limited likelihood	Site is adjacent to recreational areas and bounded by a footpath though it is not evident that its development would adversely affect either other than possibly reducing usage.	?
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources	?	?	?	Limited likelihood	There are county wildlife sites adjoining and within 400m-800m of the site and any adverse impacts are most likely to occur as a result of dust and possibly noise disturbance. No risk to distant Natura 2000 sites and no recent evidence of occupancy by protected species, though some occupy habitat in the vicinity and this matter requires further survey if the site is to be developed. The site is technically greenfield and grassland (though it is also occupied by several wind turbines) however there is long-term scope to restore the site to provide habitat improvement.	(-)
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise importance of remoteness and tranquillity	?	?	?	Very limited, if any, impact	The site is currently open but it is not in a landscape designation and is adjoined to the northeast and southwest by industrial facilities that will have higher elevation and therefore greater visual impact than rail sidings. The same issue applies to the wind turbines on the site. Overall, the assessment is therefore neutral (i.e. no significant impact).	0
EN3: To improve the	-Impact on historic environment and to avoid adverse impacts on	√	√	√	Limited	Heritage assets: there are reports of assets in the vicinity and it may be prudent to require a survey of the site, however other structures nearby	(+)/-

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
quality of the built environment	the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area				likelihood in most cases	will already have an impact on the setting of any assets. Flood risk: in the lowest flood risk zone. Impacts: same assessment as for Objective SP5 in that development of additional minerals and waste activities in the vicinity of the site would give rise to new impacts which would be adverse without mitigation.	
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors	√	√	√	Very likely	Again, dust emissions may arise but could be worse if only road transport was available.	+(+)
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water				No impact	No apparent risk to water quality provided appropriate dust suppression is applied if necessary.	o
NR3: To restore and protect land and soil	-To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat	?	?	?	Depends on use	Safeguarding is related to use of the railhead by local industry and the scope to restore the site is unclear. Technically it is greenfield though occupied by wind turbines and its agricultural quality is not known.	(-)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 				No impact		0
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 				No impact	No impact (but see comments on secondary impacts in the summary)	0
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No impact		0
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification in the waste and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		0
Summary of Assessment							
<p>The potential site is an unused area of greenfield land between industrial facilities and which is partly occupied by a small wind farm. The sidings would be developed to allow any new minerals and/or waste activity in the vicinity to move materials to market without using road transport, and this is the principal benefit of the site. As it is a completely new site, it has the potential to introduce new dust, noise and other impacts to a location that does not experience them currently, although it is located in an industrialised urban area. The degree of sustainability turns on the relative level and duration of any adverse impacts on the immediate surroundings when weighed against the potential impacts of moving materials by road, and its impact on the county road network, if the site is not developed for this purpose.</p>							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified. Cumulative impacts: most of the surrounding industry is in enclosed facilities and therefore the sidings could have a substantial cumulative impact in terms of dust, vibration, noise, etc. Synergistic: none identified.							
Mitigation Proposed							
There is limited scope to minimise noise and similar impacts of transferring material to rail and its movement off site. The principal requirement will be to limit movements and other activity on the sidings to appropriate times of day to minimise impacts on the limited number of nearby properties. Additional surveys for protected wildlife species in the vicinity, and of heritage assets would also be required.							

AL38 Innovia rail sidings, Wigton – safeguarding of existing railhead

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No effect	Any impact would occur as a result of involvement in the determination process	0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Very likely	Safeguarded for continued use in connection with the existing manufacturing activity on site. Facility not anticipated for wider use and is not proposed to open the site up to other users but if it was then potential for positive impact upon this objective.	(+)
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No effect		0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP4: To improve the level of skills, education and training	-Education and training				No effect		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				No effect	This is an existing rail head and facility serving a large manufacturing business. No change to existing use as railhead.	0
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No effect	This is an existing rail head and facility serving a large manufacturing business. No change to existing use as railhead.	0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources				No effect	This is an existing rail head and facility serving a large manufacturing business. No change to existing use as railhead.	0
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity				No effect	This is an existing rail head and facility serving a large manufacturing business. No change to existing use as railhead.	0
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area				No effect	This is an existing rail head and facility serving a large manufacturing business. No change to existing use as railhead.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Very likely	Safeguards current sustainable transport practices of existing manufacturing business.	+
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 				No effect		0
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 				No effect		0
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 				Very limited	Safeguards current sustainable transport practices of existing manufacturing business. Seeks to ensure railhead is safeguarded so that it could be made available for other bulk movements in the future.	(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment				No effect	No direct impact on job creation.	0
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No effect	No direct impact on access to jobs.	0
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No effect	No direct impact.	0
Summary of Assessment							
The assessment has assumed that the rail siding is to be safeguarded for continued use in connection with the manufacturing business and no major proposed changes. It is, therefore, safeguarded for general uses, including the high volume of waste movements that the company processes generate. The safeguarding has no effect on the majority of the SA objectives, as it represents no change on the current position. The proposal does however have an indirect benefit in safeguarding the railhead used by a large employer and manufacturing business in Cumbria.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: safeguards current sustainable transport practices of existing manufacturing business, a specialist plastic manufacturer. Cumulative: none identified. Synergistic: none identified.							
Mitigation Proposed							
None							

AL39 Silloth Port – safeguarding of existing wharves

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No effect	Any impact would occur as a result of involvement in the determination process	0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices		✓	✓	Limited likelihood	Safeguarded port for continued use, with potential for movement of mineral and waste materials. Port not currently used for such movements as principally serves the adjacent milling activity.	+
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No effect		0
SP4: To improve the level of skills, education and training	-Education and training				No effect		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				No effect	No change to existing use and activity proposed and no direct change as a result of the policy.	0
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No effect	No change to existing use and activity proposed and no direct change as a result of the policy.	0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources				No effect	No change to existing use and activity proposed and no direct change as a result of the policy.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 				No effect	No change to existing use and activity proposed and no direct change as a result of the policy.	0
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 				No effect	No change to existing use and activity proposed and no direct change as a result of the policy.	0
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Very likely	Safeguards current sustainable transport practices of those using the Port facility.	+
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 				No effect	No change to existing use and activity proposed and no direct change as a result of the policy.	0
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 				No effect	No change to existing use and activity proposed and no direct change as a result of the policy.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 		√	√	Limited likelihood	Safeguarding port for continued use, with potential for movement of mineral and waste materials. Port not currently used for such movements as principally serves the adjacent milling activity.	+
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 	√	√	√	Very likely	Safeguards port activity in the longer term.	+
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No effect	No direct impact.	0
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 	√	√	√	Very likely	Safeguards port activity in the longer term.	+
Summary of Assessment							
The assessment has assumed that the port is safeguarded in the longer term for a range of uses, not just minerals and waste. The safeguarding has no effect on the majority of the SA objectives, as it represents no change on the current position. The proposal does, however, perform strongly against the economic objectives, as it is safeguarding the operations of the port, and those objectives promoting sustainable transport practices.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified. Cumulative: none identified. Synergistic: none identified.							
Mitigation Proposed							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
none identified							

BA26 – Barrow Port railhead & wharves – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	Provides for continuing use of road/rail and road/sea transfer of materials which are currently used by a number of minerals and waste businesses within the port estate.	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	?	?	?	No new impact	Allocation does not appear to introduce new impacts as the railhead and other transfer facilities are already used by minerals and waste businesses. Any impacts are likely to arise as a result of new businesses being attracted to the port and would have to be assessed at the planning application stage. However this neutral assessment assumes any new development would not result in use of the railhead outside of current hours of operation as this could give rise to additional impacts.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources				No impact	There are a number of local wildlife designations nearby and the site adjoins an SSSI and Natura 2000 sites. HRA has concluded that the allocation should not present risks to these assets provided existing mitigation measures are maintained. The viability of such measures would need to be reviewed if continued use of the railhead attracted new land uses. However any impacts would most likely be the result of the new uses of the site (and addressed through the planning application process) and not from the railhead.	0
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity				No impact	Railhead is within existing working port.	0
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance degraded urban and rural environment within the area				No impact	Heritage assets: there is a Conservation Area immediately to the north of the port estate, but safeguarding the railhead would not have any additional effect on the current impacts of a range of industrial uses within the port estate. Flood risk: site is in high flood risk area but protected by flood defences and would not take additional land outside the protected area. Impacts: no impact provided there is no extension to the hours the railhead is used already. Enhancement: continued operation of the railhead might attract new uses to the port giving scope to redevelop those parts that are currently unused.	(+)/?
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and	√	√	√	Inevitable	Clearly supports sustainable transport and use of alternative modes (recognising that rail and sea transport also generate greenhouse gases). Additional dust emissions are only likely to arise as a result of increased use of the railhead which would occur because of other development proposals rather than due to safeguarding of the railhead.	++

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	<ul style="list-style-type: none"> application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 						
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 				No impact	Assessment assumes existing controls would apply to limit water impacts from other uses of the railhead.	o
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 				No impact		o
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	(√)	(√)	(√)	Possible	Safeguarding would not help to retain jobs but continued or new use of the railhead could increase movements through the port, supporting its economic viability while it might also attract new businesses generating new jobs.	(+)
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact		o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
The allocation safeguards an existing railhead and the port, offering the prospect of both road-rail and road-sea transfer (though the latter is primarily a benefit of allocating the wider port estate). Provided use is limited to existing working hours (to avoid introducing new noise, light, traffic, etc., impacts on the surroundings), there are no evident significant adverse impacts. Any localised impacts in terms of additional traffic would be offset by greater benefits from reduced impacts across the county road network. The benefits of continued or increased use of the railhead would be weighed against the likely corresponding increase in certain impacts within the port estate and its surroundings.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: main issue is whether continued certainty of operation of the railhead could attract new businesses to help in the regeneration of the port, bringing new jobs (but possibly additional impacts). Cumulative: depends on existing level of use of the facility, though the capacity of the railhead and the line into the port will limit the extent to which impacts could accumulate at a specific time. Any benefit from attracting new business or stimulating additional use of the rail facility will create cumulative impacts. Synergistic: benefit of road/rail or road/sea transfer co-located with an area supplying industrial land.							
Mitigation Proposed							
None provided use for minerals and waste purposes does not result in additional use of the facility outside existing hours as this would result in new noise, light, traffic, etc. impacts on nearby receptors.							

CO35 – Low Level Waste Repository rail spur – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6- 15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	Supports wider strategy of seeking to maximise use of rail to deliver LLW to the repository from sources across the country.	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				Inevitable	Allocation would maintain existing use of the facility without any risk of increased impacts and use of any existing mitigation measures that are appropriate. By implication, continued use of the facility will prevent long-distance road movements of the wastes resulting in some minor incremental benefit over a wide area.	0
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources				No new impact	As for Objective SP5	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity				No impact	Safeguarding is to maintain but not expand an existing facility therefore there is no additional impact of safeguarding it.	o
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area				No impact	As for Objective SP5	o
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors	√	√	√	Inevitable	Clearly supports sustainable transport; the site serves a national catchment.	++
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water				No impact		o
NR3: To restore and protect land and soil	-To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat				No impact		o
NR4: To manage mineral resources sustainability and	-Reflect the waste management hierarchy -Promote the use of renewable forms of				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
minimise waste	energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working						
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment				No impact		o
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact		o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
The allocation safeguards the existing rail interchange facilities, which enable the majority of the LLW brought to the site to arrive by rail. The allocation does not appear to result in any change to the scale or nature of operations, construction of new facilities, etc., and, therefore, it would not result in any new impacts that would need additional mitigation. Continued use of the facility will make a minor incremental contribution to reducing long-distance road movements and the associated impacts.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: see comments above. Cumulative: none identified. Synergistic: none identified.							
Mitigation Proposed							
None, other than continuing use of any measures currently applied.							

CO36 - Sellafield rail spur – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	Safeguards existing facility for moving waste off site or materials on site, avoids transfer by road	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				No new impact	Safeguarding would maintain existing use of the facility without any risk of increased impacts and use of any existing mitigation measures that are appropriate.	0
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		0
EN1: To protect and enhance biodiversity	-Impact on habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources				No new impact	As for Objective SP5	0
EN2: To preserve, enhance and manage landscape quality and character for future	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside				No impact	Safeguarding is to maintain but not expand an existing facility therefore there is no additional impact.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
generations	-Recognise and respect importance of remoteness and tranquillity						
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area				No impact	As for Objective SP5	o
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors	√	√	√	Inevitable	Clearly supports sustainable transport.	++
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water				No impact		o
NR3: To restore and protect land and soil	-To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat				No impact		o
NR4: To manage mineral resources sustainability and minimise waste	-Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	<ul style="list-style-type: none"> -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 						
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 				No impact		o
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No impact		o
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		o
Summary of Assessment							
The allocation safeguards the existing rail interchange facilities on the seaward side of the Sellafield site, which is used primarily to move radioactive wastes. Allocation does not appear to result in any change to the scale or nature of operations, construction of new facilities, etc., and, therefore, it would not result in any new impacts that would need additional mitigation.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: indirect benefit from avoiding movement of wastes by road. Cumulative: none identified. Synergistic: none identified.							
Mitigation Proposed							
None, other than continuing use of any measures currently applied.							

M31 – Salthouse, near Millom, potential rail siding – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		Score
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	Supports wider strategy of seeking to maximise use of rail reflecting the poor access of Ghyll Scaur Quarry to the strategic road network. Potential future use of the site to support other infrastructure projects in the vicinity would result in similar benefits if road transport can be substituted.	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				Inevitable	Safeguarding applies to land that was previously used for temporary sidings to transfer roadstone brought from Ghyll Scaur Quarry to the rail line serving Millom and links to the wider rail network. The site is no longer in use; reactivation would re-introduce previous impacts of noise, dust, vibrations on a limited number of properties along the route. These impacts have to be set against potential benefits of avoiding road transport that may affect a greater number of properties over a wider area.	-
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		0
EN1: To protect and enhance biodiversity	-Impact on habitats and species -Restoration of habitats and species -Enhancement of				No impact	No new impacts are anticipated provided that the scale of operations, if restarted, are no greater than those that occurred previously. Any change to daytime loading of trains may need further investigation.	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	natural/ecological resources						
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 	√	√	√	Moderate impact	The site is open, so will have some existing visual impact, but it is not in a designated area. Movement of material by road to/from the site will have some existing impact on nearby properties, which would be reactivated by continued use reinstatement of the site at some time in the future.	-
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 				Quite likely	<p>Heritage assets: re-commencing use of the facility would warrant further investigation and possible mitigation of impacts on the SAM and listed buildings that lie along or close to the route to the site from the quarry especially if there is an increase in the scale and timing or nature of use of the railhead.</p> <p>Flood risk: site is in Flood Risk Zone 3a. Previous assessment concluded that this is not an issue as this is water compatible development.</p> <p>Impact: assessment as for Objective SP5.</p>	-(-)
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Inevitable	As for Objective SP2.	++
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 	?	?	?	Possible impact	Site is in coastal grazing marshland and bordered by Natura 2000 and SSSI sites as well as various county-level nature designations. Mitigation will be needed to limit the risk of material stored temporarily on site being blown or washed into surface or groundwater resources though it is	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
						assumed these measures were being used and were effective.	
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 	?	?	?	Limited likelihood	Site is greenfield but of relatively low quality and the measures referred to above would also be necessary to address any risk of soil contamination. There is no alternative brownfield site.	?
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 	√	√	(√)	Inevitable	Safeguarding will help to maintain the supply of the specific materials quarried at Ghyll Scaur to a national market.	+
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 	(√)	(√)	√	Limited impact	Will help to safeguard jobs at the quarry (though this could still occur if the site relied on road transport instead).	(+)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6- 15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact		o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
The allocation safeguards the previous loading facility for future use, to serve Ghyll Scaur Quarry or potentially to support other minerals and waste activity in this part of the county. While the infrastructure has been beneficial in allowing non-road movement of a nationally important aggregate, it has potentially significant adverse impacts on a small number of properties along the route, linking the quarry to the railway line, if operations are re-started and if they increase in scale and/or duration. Previous consultation on the site identified that there have been complaints about noise from night-time loading of trains; this would need to be mitigated if the siding is reinstated.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: principal benefit is avoidance of road transport of materials and incremental reduction in any impacts elsewhere on the strategic road network in the county and beyond. Cumulative: none identified. Synergistic: none identified.							
Mitigation Proposed							
Impacts could be reduced or eliminated by using a conveyor belt to move material down from the quarry if the site reopens for this purpose, and provided permission can be obtained from landowners. If the site is to become a permanent facility for other uses then it will require further investigation of mitigation measures to deal with noise and other road transport impacts.							

M34 – Kingmoor existing rail sidings – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (ie. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		o
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable if used	Provides continued scope for movement of waste materials without road transport and current associated waste use involves recycling waste materials.	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		o
SP4: To improve the level of skills, education and training	-Education and training				No impact		o
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people	?	?	?	No new impact	Allocation would not appear to give rise to any new impacts provided the site is used for its current purpose only. However any diversification (including use of the facility by other companies and for other purposes) would need further investigation if a planning application is submitted.	+/?
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		o
EN1: To protect and enhance biodiversity	-Impact on habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources				No impact	No additional impact is assumed if the site continues in its current use.	o
EN2: To preserve, enhance and manage landscape quality and character for	-Impact on designated landscape -Impact on areas of heritage value				No impact	No impact provided no new structures are built on the site although it lies within a partly industrialised area and on a plot with long-standing (historic) rail use.	o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
future generations	-Impact on the countryside -Recognise and respect importance of remoteness and tranquillity						
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and land use -Enhance the degraded urban and rural environment within the area				No impact	No additional impact provided there is no extension to the hours the railhead is used already (and it is assumed its position on the West Coast Main Line places some limitation on the times when trains can enter and leave the site).	o
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors	√	√	√	Inevitable	Clearly supports sustainable transport and use of alternative modes. Probably has limited localised benefit which is spread over a much wider area (the site currently takes materials from across the North West region) so the benefit in any one location is likely to be minimal.	+
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water				No impact		o
NR3: To restore and protect land and soil	-To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat				No impact		o
NR4: To manage mineral resources sustainability	-Reflect the waste management hierarchy				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
and minimise waste	<ul style="list-style-type: none"> -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 						
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 	?	?	?	Limited likelihood	It is logical to expect retaining the railhead would protect jobs in the existing recycling centre though the scale is unclear. Potential benefits would be greater if the sidings could be used by other local industries as this might attract additional investment to the locality.	?
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No impact		o
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 	?	?	?	Depends on future use	See comments for Objective EC1.	o
Summary of Assessment							
The allocation safeguards existing sidings that are used primarily for a recycling facility operated by Network Rail. In principle, this means that wastes can be brought to the site from across the North West, resulting in beneficial road traffic impacts. The safeguarding maintains the existing use and, therefore, does not appear to give rise to new impacts, recognising that the site has been in long-standing rail use and is adjacent to other industrial areas in an urban location.							

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Secondary, Cumulative & Synergistic Impacts							
Secondary: none identified. Cumulative: none identified provided site continues in current use only. Synergistic: possible benefit from using the sidings for movement of materials related to other local industries.							
Mitigation Proposed							
None provided continued use does not result in additional use of the facility outside existing hours as this would result in new noise, light, traffic, etc. impacts on nearby receptors.							

M35 – Shap Beck Quarry existing rail sidings – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	Safeguarding allows continued use of rail line to move materials from the adjacent quarry (although the site does have good access to the strategic road network).	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				No impact	Safeguarding will allow continued use of an existing loading facility and therefore should not give rise to any additional impacts provided there is no change to the scale or timing of loading activities, and in the expectation that existing mitigation is effective. There is one property about 300m to the east that may be affected by any activity on the site.	0
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats/species -Enhancement of natural/ecological resources	?	?	?	Not yet assessed	It is assumed that potential nature conservation impacts were assessed when planning permission to use the rail siding was granted, but this may have pre-dated legislation requiring HRA and therefore this matter may need to be addressed.	?
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise importance of remoteness and tranquillity				No impact	Some visual intrusion and disturbance will occur already as a result of the loading facility and nearby quarrying, but safeguarding should not have any additional adverse impact provided the scale and timing of operation is unchanged.	0
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area				Quite likely	Heritage assets: no new impacts. Flood risk: an area of high flood risk (zone 3a) abuts immediately to the east but it is understood defences are already in place to protect the sidings and the adjacent West Coast Main Line. Impact: any impacts will result from existing operations and no new ones are anticipated.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Inevitable	As for Objective SP2.	++
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 				No impact		0
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 				No impact	Site is existing brownfield industrial land. It is assumed existing mitigation measures will prevent any materials being blown from the loading area onto adjacent farmland and that these would continue to be used.	0
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 	√	√	√	Inevitable	Safeguarding will help to maintain the supply of stone and/or aggregate to a national market.	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	(√)	(√)	(√)	Limited impact	Will help to safeguard jobs at the quarry which is known to be particularly important to the local economy (though this could still occur if the site relied on road transport instead).	(+)
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact		o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
The allocation would safeguard the existing loading facility for the movement of quarried materials to elsewhere in the county or to a wider market, avoiding road transport impacts on local and strategic routes. The policy merely continues the existing use of the site and this is not expected to give rise to any new impacts; those impacts that do exist are expected to be mitigated effectively as at present.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: principal benefit is avoidance of road transport of the material and incremental reduction in any impacts elsewhere on the strategic road network in the county and beyond. Cumulative: none identified. Synergistic: none identified.							
Mitigation Proposed							
None provided existing mitigation is effective and that use of the rail loading facility will not increase in scale or occur at different times of the day when new impacts might arise.							

M36 – Shapfell Quarry existing rail sidings – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	Safeguarding allows continued use of rail line to move materials from the adjacent quarry (although the site does have good access to the strategic road network).	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		0
SP4: To improve the level of skills, education and training	-Education and training				No impact		0
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				No impact	Safeguarding will allow continued use of an existing loading facility and therefore should not give rise to any additional impacts provided there is no change to the scale or timing of loading activities, and in the expectation that any existing mitigation is effective. There is a single property 250m to the east that may be affected by any existing activity.	0
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		0
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources	?	?	?	Not yet assessed	It is assumed that potential nature conservation impacts were assessed when planning permission to use the rail siding was granted but this may have pre-dated legislation requiring HRA and therefore this matter may need to be addressed.	?

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
EN2: To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> -Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity 				No impact	Some visual intrusion and disturbance will occur already as a result of the loading facility and nearby quarrying but safeguarding should not have any additional adverse impact provided the scale and timing of operation is unchanged.	0
EN3: To improve the quality of the built environment	<ul style="list-style-type: none"> -Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment within the area 				Quite likely	<p>Heritage assets: no new impacts.</p> <p>Flood risk: a small area of flood risk zone 3 runs across the northern edge of the railhead although this is the furthest point from the junction of the siding with the West Coast Main Line leaving the rest of the facility in a low flood risk area.</p> <p>Impact: any impacts will result from existing operations and no new ones are anticipated.</p>	0
NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Inevitable	As for Objective SP2.	++
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 				No impact		0
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, 				No impact	Site is existing brownfield industrial land. It is assumed existing mitigation measures will prevent any materials being blown from the loading area onto adjacent farmland and that these would continue to be used.	0

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
	pollution - the use of peat						
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 	√	√	√	Inevitable	Safeguarding will help to maintain the supply of aggregate to a national market.	+
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 	(√)	(√)	(√)	Limited impact	Will help to safeguard jobs at the quarry which is known to be particularly important to the local and national economy (though this could still occur if the site relied on road transport instead).	+
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No impact		o
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Summary of Assessment							
The allocation would safeguard the existing loading facility, which enables movement of quarried materials to elsewhere in the county or to a wider market, avoiding road transport impacts on local and strategic routes. The policy merely continues the existing use of the site and this is not expected to give rise to any new impacts; those impacts that do exist are expected to be mitigated effectively as at present.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: principal benefit is avoidance of road transport of the material and incremental reduction in any impacts elsewhere on the strategic road network in the county and beyond. Cumulative: none identified. Synergistic: none identified.							
Mitigation Proposed							
None provided existing mitigation is effective and that use of the rail loading facility will not increase in scale or occur at different times of the day when new impacts might arise.							

M37 – Shap Blue Quarry rail siding – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (ie. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		0
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	Safeguarding allows continued use of rail line to move materials from the adjacent quarry (although the site does have good access to the strategic road network).	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		0

SP4: To improve the level of skills, education and training	-Education and training				No impact		o
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				No impact	Safeguarding will allow continued use of an existing loading facility and therefore should not give rise to any additional impacts provided there is no change to the scale or timing of loading activities, and in the expectation that any existing mitigation is effective. There is a small row of cottages about 250m to the east that may be affected by any existing activity on the site though impacts from the adjacent West Coast Main Line are likely to be more significant.	o
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		o
EN1: To protect and enhance biodiversity	-Impact on habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources	?	?	?	Not yet assessed	It is assumed that potential nature conservation impacts were assessed when planning permission to use the rail siding was granted but this may have pre-dated legislation requiring HRA and therefore this matter may need to be addressed.	?
EN2: To preserve, enhance and manage landscape quality and character for future generations	-Impact on designated landscape -Impact on areas of heritage value -Impact on the countryside -Recognise and respect importance of remoteness and tranquillity				No impact	Some visual intrusion and disturbance will occur already as a result of the loading facility and nearby quarrying but safeguarding should not have any additional adverse impact provided the scale and timing of operation is unchanged.	o
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and associated land use -Enhance the degraded urban and rural environment in the area				Quite likely	Heritage assets: no new impacts. Flood risk: the site is in the lowest zone of flood risk. Impact: any impacts will result from existing operations and no new ones are anticipated.	o

NR1: To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> -Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors 	√	√	√	Inevitable	As for Objective SP2.	++
NR2: To improve water quality and water resources	<ul style="list-style-type: none"> -Adequate protection for waterbodies and the marine environment and promote the efficient use of water 				No impact		0
NR3: To restore and protect land and soil	<ul style="list-style-type: none"> -To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat 				No impact	Site is existing brownfield industrial land. It is assumed existing mitigation measures will prevent any materials being blown from the loading area onto adjacent farmland and that these would continue to be used.	0
NR4: To manage mineral resources sustainability and minimise waste	<ul style="list-style-type: none"> -Reflect the waste management hierarchy -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 	√	√	√	Inevitable	Safeguarding will help to maintain the supply of stone and/or aggregate to a national market.	+

EC1: To retain existing jobs and create new employment opportunities	-Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment	(√)	(√)	(√)	Limited impact	Will help to safeguard jobs at the quarry which is known to be particularly important to the local economy (though this could still occur if the site relied on road transport instead).	(+)
EC2: To improve access to jobs	-Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need				No impact		o
EC3: To diversify and strengthen the local Economy	-Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products				No impact		o
Summary of Assessment							
The allocation would safeguard the existing loading facility, which enables movement of quarried materials to elsewhere in the county or to a wider market, avoiding road transport impacts on local and strategic routes. The policy merely continues the existing use of the site and this is not expected to give rise to any new impacts; those impacts that do exist are expected to be mitigated effectively as at present.							
Secondary, Cumulative & Synergistic Impacts							
Secondary: principal benefit is avoidance of road transport of the material and incremental reduction in any impacts elsewhere on the strategic road network in the county and beyond. Cumulative: none identified. Synergistic: none identified.							
Mitigation Proposed							
None provided existing mitigation is effective and that use of the rail loading facility will not increase in scale or occur at different times of the day when new impacts might arise.							

M38 – Kirkby Thore gypsum works rail sidings – safeguarded

Symbols in the 'Duration' column only indicate whether an impact is likely to occur (i.e. a ✓ does not imply a positive impact, this is shown in the 'Score' column)

Assessment framework		Permanence			Characteristics of impacts		Score
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
SP1: To increase the level of participation in democratic processes	-To encourage and empower local people to become involved				No impact		o
SP2: To improve access to services, facilities, the countryside and open spaces	-To improve access to recycling and composting services -Using sustainable transport choices	✓	✓	✓	Inevitable	Safeguarding allows continued use of rail line to move materials and products from the factory avoiding use of local and strategic roads.	++
SP3: To provide everyone with a decent home	-To help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all				No impact		o
SP4: To improve the level of skills, education and training	Education and training				No impact		o
SP5: To improve the health and sense of well being of people	-Impact on human health e.g. noise and dust emissions -Proximity to sensitive receptors -Impact on the sense of well being of people				No impact	Safeguarding will allow continued use of an existing loading facility and therefore should not give rise to any additional impacts provided there is no change to the scale or timing of loading activities, and in the expectation that any existing mitigation is effective.	o
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	-community identity - social cohesion and help continue valued local traditions -To promote recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport				No impact		o
EN1: To protect and enhance biodiversity	-Impact on relevant habitats and species -Restoration of habitats and species -Enhancement of natural/ecological resources				No impact	No new impacts are anticipated provided that the existing scale of operation is unchanged.	o
EN2: To preserve, enhance and manage landscape	-Impact on designated landscape -Impact on areas of heritage value				No impact	Some visual intrusion and disturbance will occur already (recognising the facility serves a large factory which will also be	o

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
quality and character for future generations	-Impact on the countryside -Recognise importance of remoteness and tranquillity					creating impacts in a largely rural area) but safeguarding should not have any additional adverse impact provided the scale and timing of operation is unchanged.	
EN3: To improve the quality of the built environment	-Impact on historic environment and to avoid adverse impacts on the built heritage from mineral working -appropriateness of development relative to flood risk -Reduce noise, light pollution, dust emissions etc. arising from minerals developments and land use -Enhance the degraded urban and rural environment within the area				Quite likely	Heritage assets: no new impacts. Flood risk: site is in the lowest flood risk area. Impact: any impacts will result from existing operation of the factory and rail sidings and no new ones are anticipated.	o
NR1: To improve local air quality and reduce greenhouse gas emissions	-Control dust emissions -Sustainable transport of waste and minerals where feasible to help reduce emissions -Stimulate the development and application of clean/carbon efficient technologies -Energy from waste facilities and contribute to the use of renewable energy sources -promote climate change adaptation in the minerals and waste sectors	√	√	√	Inevitable	As for Objective SP2.	++
NR2: To improve water quality and water resources	-Adequate protection for waterbodies and the marine environment and promote the efficient use of water				No impact		o
NR3: To restore and protect land and soil	-To reduce the amount of contaminated land within the area -Loss of high grade agricultural land and Greenfield sites -Potential to cause soil degradation, pollution - the use of peat				No impact	Site is existing brownfield industrial land. It is assumed existing mitigation measures will prevent any materials being blown from the loading area onto adjacent farmland and that these would continue to be used.	o
NR4: To manage mineral resources sustainability	-Reflect the waste management hierarchy	√	√	√	Inevitable	Safeguarding will help to maintain the supply of the products manufactured at the plant to a national market.	+

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6-15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
and minimise waste	<ul style="list-style-type: none"> -Promote the use of renewable forms of energy -Provide flow of minerals to meet demand within the area -Protect / conserve mineral resource from sterilisation as far as possible -Encourage use of secondary aggregate rather than primary materials -Support the use of co-products from minerals working 						
EC1: To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> -Retain existing jobs and stimulate new ones in the waste and minerals sectors -Support local business development or investment 	(√)	(√)	(√)	Limited impact	Will help to safeguard jobs at the plant (though this could still occur if the site relied on road transport instead).	(+)
EC2: To improve access to jobs	<ul style="list-style-type: none"> -Increase access for all to a range of jobs -Encourage the location of employment opportunities in areas of greatest need 				No impact		o
EC3: To diversify and strengthen the local Economy	<ul style="list-style-type: none"> -Stimulate private investment -Stimulate diversification within the waste management and minerals sectors -Stimulate innovation and research in waste, minerals recycling and use of co-products 				No impact		o

Summary of Assessment

The allocation would safeguard the existing loading facility, which enables distribution of gypsum-based products from the site to a national market, avoiding road transport impacts on local and strategic routes. The policy merely continues the existing use of the site and this is not expected to give rise to any new impacts; those impacts that do exist are expected to be mitigated effectively as at present.

Assessment framework		Permanence			Characteristics of impacts		
SA Objective	Evaluation criteria	Duration			Certainty	Nature/scale of impact(s)	Score
		0-5 yrs	6- 15 yrs	>15 yrs	Inevitable / very or quite likely / limited likelihood / no effect / depends on use	Explain the nature / scale for each impact as necessary	
Secondary, Cumulative & Synergistic Impacts							
Secondary: principal benefit is avoidance of road transport of the material and incremental reduction in any impacts elsewhere on the strategic road network in the county and beyond. Cumulative: none identified. Synergistic: none identified.							
Mitigation Proposed							
None provided existing mitigation is effective (previous consultation on sites has not identified any complaints about the facility) and provided use of the rail loading facility will not increase in scale or occur at different times of the day when new impacts might arise.							