

County Durham Minerals and Waste Policies and Allocations Document

Publication Draft

Sustainability Appraisal Report Appendices

November 2022



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Appendix A: Representations Submitted on the SA Report

Table A1: Representations Submitted on the SA Report

Consultee	Date	Report Section	Representation	Response
Environment Agency	4 th November 2021	SA Framework	<p>Objective 8 (Reduce the causes of climate change) We advise that Objective 8 includes the following text, “encouraging alternative renewable heat and energy schemes such as geothermal, ground source heating and cooling (GSHC) and mine heat/energy.”</p>	No change. It is considered that this is adequately covered by the following wording ‘Contribute to the development / wider use of renewable energy sources’
Environment Agency	4 th November 2021	SA Framework	<p>Objective 9 (Adapt to Climate Change) We advise the inclusion of the following wording “discourage inappropriate development in areas at risk from rising mine water.” This would take into account situations where drainage systems, especially infiltration, will not work because of high groundwater or mine water levels.</p> <p>We also advise that Objective 9 could use stronger wording in respect of flood risk and encourage development to reduce flood risk rather than focussing on not increasing flood risk.</p>	<p>The following minor amendment has been made:</p> <p>Reduce and minimise the risk of / from flooding or coastal erosion, including in areas at risk from rising mine water</p> <p>The amendment does not alter the overall emphasis of objective</p>

Consultee	Date	Report Section	Representation	Response
				9 which is to respond and enable adaptation to the inevitable impacts of climate change.
Environment Agency	4 th November 2021	SA Framework	<p>Objective 13 (Protect and Improve air, water and soil resources)</p> <p>In respect of soil resources, there should be some consideration of drought climate change impacts as we have seen much drier soils for much longer periods in recent years.</p> <p>We are pleased to see that the reduction in the amount of water used has been included but we would also wish to see consideration of protecting/managing water in high stress areas and the role of water in protecting and maintaining the environment, including biodiversity.</p>	<p>The following minor amendment has been made in respect of soil resources to reflect this further:</p> <p>Promote good soil management and health and avoid exacerbating dryness associated with drought.</p> <p>The amendment does not alter the overall emphasis of objective 13 which is to protect and improve air, water and soil resources.</p> <p>It is considered that protecting and</p>

Consultee	Date	Report Section	Representation	Response
				managing water in high stress areas etc is taken into account by criterion that aims to take local carrying capacity limits into account
Environment Agency	4 th November 2021	SA Framework	<p>Objective 15 (Improve the sustainability of mineral extraction)</p> <p>We advise that Objective 15 could include the following text “seek opportunity to achieve environmental and biodiversity net gains following mineral extraction.”</p>	<p>No change. It is considered that biodiversity net gains is taken into account by SA Objective 10 – To protect and enhance biodiversity and geodiversity. Commentary against SA objective 15 also takes into account the effects predicted against all the preceding SA objectives which consider the protection and enhancement of environmental receptors i.e. landscape,</p>

Consultee	Date	Report Section	Representation	Response
				biodiversity, heritage, air, water, soil.
Environment Agency	4 th November 2021	Section 8	<p>(Conclusion, Monitoring and Next Steps)</p> <p>We are very happy to see the inclusion of the potential risks to groundwater resources posed by allocations at Thrislington Quarry and Crime Rigg Quarry within Sections 8.0.1 and 8.0.2 of the SA. We consider that it would also be beneficial if similar wording on the potential risks was included in the minerals and waste development plan itself (as mentioned above in Chapter 10). We are pleased that Section 8 explains that detailed hydrogeological assessment will be required and that the EA will be pivotal to determining whether the risks to groundwater can be successfully mitigated.</p>	Noted
Historic England	5 th November 2021	Page 25 / Section A3	Support in relation to issue 15 – No change	Noted
Historic England	5 th November 2021	Page 31 / Section A3	We would recommend revising the first question in the second column to read “Protect and enhance the significance of designated and non-designated heritage assets including their setting. This is more all-encompassing in terms of the assessment of impact rather than character or appearance. Change as per comments	Agree, this is a more encompassing term and will be amended. The amendment does not alter the overall emphasis of objective 12 which is to protect and enhance cultural heritage and the historic environment.
Historic England	5 th November 2021	Page 53 / Section 4.2.15	Whilst we agree that the policy as written is likely to avoid substantial harm to a heritage asset, it may also prevent less	Agree. The wording will be revised

Consultee	Date	Report Section	Representation	Response
			<p>than substantial harm to a heritage asset where after weighing the public benefits of the proposal and undertaking any balancing exercise of the benefits of minerals exploration a proposal is deemed unacceptable.</p> <p>We do not consider a change to the policy is necessary, instead a rewording of the Sustainability Appraisal as per comments.</p>	accordingly to reflect this.
Historic England	5 th November 2021	Page 89 / Section 4.2.9	We support the recognition that borrow pits may reduce the need for obtaining supply from an existing quarry which may help avoid impacts on the historic environment.	Noted
Historic England	5 th November 2021	Page 114	We would state that ensuing that proposals would need to demonstrate there is a clear and convincing justification for any harm not just substantial harm, and that the public benefits of exploration are weighed against this harm. Where harm to a heritage asset can be avoided this should be the case. No change needed to the policy	Agree. The wording will be revised accordingly to reflect this.
Historic England	5 th November 2021	Page 120 / Section 4.15.11	Proposals which lead to any harm will require a clear convincing justification, where it is possible to remove any such harm or to minimise it this should be the case. No change needed to the policy	Agree. The wording will be revised accordingly to reflect this.
Historic England	5 th November 2021	Page 127 / Section 4.16.13	Again, this should not be limited to substantial harm. No change needed to the policy	Agree. The wording will be revised accordingly to reflect this.
Historic England	5 th November 2021	Page 163 / Recommendations / Mitigation	We support the proposed changes through the SA which will help avoid and minimise any harm to the historic environment. However, as stated within our comments to the plan at Appendix A there is a role within this policy to be	Noted

Consultee	Date	Report Section	Representation	Response
			<p>more direct on the aftercare and restoration in respect of the historic environment including revealing significance. The policy should be more direct on the restoration and aftercare in relation to opportunities for better revealing or enhancing the significance of heritage assets</p>	
Historic England	5 th November 2021	Page 179 / Summary Assessment – Policy MW24 Site Specific Allocation Northern Extension to Crime Rigg Quarry	<p>In light of our comments on the plan found at Appendix A we consider that as there are heritage assets within close proximity of the site including Shadforth Conservation Area and Ludworth Tower (Listed Grade II and Scheduled Monument) a brief Heritage Impact Assessment should be carried out to assess any potential impact arising from development from this proposal. This should include any measures to avoid, minimise and mitigate harm.</p> <p>Undertake a Heritage Impact Assessment to determine suitability for allocation and the need for any avoidance, minimisation and mitigation measures should any harm be identified.</p> <p>At this stage we would assess impacts as uncertain.</p>	The assessment outcome will be reviewed and amended as necessary in line with the conclusions from the Heritage Impact Assessment.
Historic England	5 th November 2021	Page 182 / 5.2.18	<p>Whilst Ludworth Tower is sited 560m away given topography and scale of the proposal a more detailed Heritage Impact Assessment is needed to ensure that harm would not arise from the proposed allocation. At this stage we are unable to confirm agreement with this paragraph until more detailed assessment is carried out.</p>	This paragraph and assessment outcome will be reviewed and amended as necessary in line with the conclusions from the Heritage Impact Assessment.

Consultee	Date	Report Section	Representation	Response
Historic England	5 th November 2021	Page 186 / Table of Cumulative Effects	Whilst at this stage would state impact on policy 24 Crime Rigg Quarry is uncertain, we are in general agreement with the assessment of cumulative effects of the plan being positive overall when the plan is read in conjunction with the historic environment policies within the adopted County Durham Plan. No change	Noted
Historic England	5 th November 2021	Page 194 / 12.Historic Environment	<p>We are of the view that unless there are public benefits which outweigh any less than substantial harm that may arise from a development proposal for minerals or waste, the policies within the plan alongside those of the County Durham Plan when the plan is read as a whole will help to avoid harm as much as possible not just substantial harm.</p> <p>Amend to add that in the case of proposals where there is a less than substantial harm, unless there are clear public benefits which outweigh this harm, the policies in the plan as a whole as worded will deem such proposals unacceptable.</p>	Agree. The wording will be revised accordingly to reflect this.
Historic England	5 th November 2021	n/a	<p>Many of the draft policies in the plan refer to unacceptable adverse environmental impacts. We note from the Sustainability Appraisal explains that such a policy requirement will mean that substantial harm is avoided whilst we support this we are somewhat concerned by the absence of any mention of less than substantial harm.</p> <p>Less than substantial harm is likely to be the level of harm that that arises from the impact of the majority of waste and minerals proposals where there an impact on the significance of a heritage</p>	All instances will be amended in the SA report to ensure that 'less than substantial harm' is properly accounted for in the context of unacceptable adverse environmental impacts.

Consultee	Date	Report Section	Representation	Response
			<p>asset. This because substantial harm is a very high bar only likely to be present in the most serious of cases such as the total loss of a heritage asset. However, it is important that less than substantial harm is not seen to have the same meaning as a less than substantial objection (see Bedford Borough Council v Secretary of State for Communities and Local Government, Nuon UK Ltd [2013] EWHC 2847 (Admin).</p> <p>Paragraphs 199 of the NPPF requires great weight being given to the conservation of a heritage asset (and the more important the asset, the greater the weight should be) irrespective of the level of harm to its significance. Any harm will require a clear and convincing justification (NPPF paragraph 200). Where a development proposal would lead to a less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use (NPPF paragraph 202).</p> <p>In light of the above, there are likely to be instances where a proposal would result lead to a less than substantial harm to a heritage asset, and after weighing the public benefits of the proposal, the less than substantial harm would outweigh any public benefit. Such a proposal should therefore be deemed unacceptable. It is our view that there is sufficient provision within the development plan through policy 44 of the adopted County Durham Plan that any proposals will be assessed in this way. The caveat within the policies in the</p>	

Consultee	Date	Report Section	Representation	Response
			<p>Minerals and Waste plan that states that proposals will not be supported where there is unacceptable adverse environmental impact does not lie contrary to this. Therefore, we do not object to the wording of the policies in the draft plan in this regard but are instead concerned with the way they may have been interpreted in this context within the Sustainability Appraisal.</p>	
Natural England	4 th November 2021	n/a	<p>The Sustainability Appraisal sets out a clear framework for assessing the M&WDPD and comprehensively covers the key sustainability issues that fall within Natural England's remit.</p> <p>We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us.</p>	Noted

Appendix B: Assessment of Reasonable Alternatives

Table B1: Assessment Key

Effects Predicted	Symbol
Likely to have a very positive effect	✓✓
Likely to have a positive effect	✓
Minor effect / No effect / No clear link	0
Uncertain or insufficient information to determine effect	?
Likely to have a negative effect	✗
Likely to have a very negative effect	✗✗
Could have a positive or negative effect depending on implementation	✓/✗

Table B2: Potential Sand and Gravel Allocations

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	0	Minor positive for all options. Sand extracted can be used in the construction of new homes and associated infrastructure.	-
2. To promote strong secure communities	X	0	0	X	<p>Crime Rigg Quarry northern extension Requires concurrent working with the existing quarry to ensure that overlying magnesian limestone is extracted to expose sufficient sand, ready for extraction once current reserves are exhausted. This could increase vehicle movements at this site for a period of time which can adversely impact communities. Following removal of overburden, the scale of mineral working would be in line with current levels. The proposed extension however extends the operational life of the quarry and associated haulage of minerals near to settlements (Sherburn Hill, Ludworth and Shadforth) for 18-20 years.</p> <p>Low Harperley Quarry western extension Minor negative effects predicted. Whilst working the extension would require soil and overburden stripping works to commence while working nears completion at the existing quarry, these materials</p>	Traffic and Transport Assessments would be required for all sites. Planning proposals should also be supported by measures outlining how site security and community safety will be achieved.

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<p>are likely to be used on site for screening and end restoration so are unlikely to increase vehicle movements. Output from the extension site is also not intend to increase. The proposed extension would however extend working in the area (Nr Bradley Bridge and Wolsingham) and associated transport movements for approximately 4 to 5 years.</p> <p>Thrislington West Quarry Minor negative effects predicted. Extraction would take place within an existing operational quarry void and would effectively continue sand extraction once existing reserves are exhausted, commensurate with current rates of extraction. Similar levels of vehicle movements etc are therefore anticipated. However, if allocated, the operational life of the quarry would be extended to 2045 which is an additional 20 years beyond when existing permitted reserves are expected to be exhausted. Nearby communities include West Cornforth and Ferryhill.</p> <p>Quarrington North What is proposed reflects a variation of the existing scale of working (and disposal operations) which are currently occurring within the quarry. A significant increase in vehicle movements over current levels are not anticipated but there may be some. If allocated (and planning permission secured), it is assumed the operational life of the quarry would be extended to 2057 which is an additional 15 years beyond the existing planning permission in place for</p>	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					this part of the quarry. The nearest settlements include Old Quarrington, Bowburn and Quarrington Hill.	
3. To improve education, training and life-long learning, and maintain a healthy labour market	✓	0	✓	✓	<p>Crime Rigg Quarry northern extension Working of the northern extension would safeguard existing employment until circa 2043/2045 (an additional 18-20 years) and could lead to training opportunities which are linked to employment up until this point.</p> <p>Low Harperley Quarry western extension Minor positive. Working of the western extension would safeguard existing employment until circa 2035/2036 (an additional 4-5 years) and could lead to training opportunities which are linked to employment up until this point.</p> <p>Thrislington West Quarry Working of the existing quarry void would safeguard existing employment until at least 2045 (an additional 20 years) and could lead to training opportunities which are linked to employment up until this point</p> <p>Quarrington North The northern part of the quarry has planning permission until February 2042 for the extraction of magnesian limestone (albeit a new scheme of modern working and restoration conditions need to be agreed). Allocating and securing planning permission for the extraction of underlying basal</p>	-

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					Permian sand within this area could potentially safeguard existing employment until at least 2057 (an additional 15 years) and could lead to training opportunities which are linked to employment up until this point	
4. To reduce health inequalities and promote healthy lifestyles	?	?	?	?	<p>Crime Rigg Quarry northern extension This option is just over 1km from three settlements as the crow flies (Sherburn Hill, Ludworth and Shadforth) and is within 0.6km of one farm. Given the distance, sand could potentially be extracted from the proposed area without any significant impacts to health and wellbeing (e.g. as a result of dust, noise etc). Further detailed assessments would be required to support this at the planning application stage.</p> <p>Low Harperley Quarry western extension Site is located within a less densely populated, rural area within 0.8km of several properties at Bradley Bridge, Low Wisserley House/Farm and 1.6km from Wolsingham. Given the distance, sand could potentially be extracted from the proposed area without any significant impacts to health and wellbeing (e.g. as a result of dust, noise etc). Further detailed assessments would be required to support this at the planning application stage.</p>	Detailed assessments on the impact of working the proposals on human health and wellbeing would be required to inform any planning decision.

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<p>Thrislington West Quarry This option is within 0.7km of West Cornforth and over 2km from Ferryhill. However, the proposed allocation is an existing quarry which is in existing operation. Whilst it is likely that sand can be extracted from the proposed area within the void without any significant impacts to health and wellbeing (e.g. as a result of dust, noise etc) on nearby receptors, further detailed assessments would be required to support this at the planning application stage.</p> <p>Quarrington North This option is the most closely located to a settlement being within 0.6km of Old Quarrington. The proposed allocation is also located 1.3km from Bowburn and Quarrington Hill. Given the distance, sand could potentially be extracted from the proposed area without any significant impacts to health and wellbeing (e.g. as a result of dust, noise etc). The northern part of the quarry already has planning permission for the extraction of limestones so it is assumed that this can be worked without unacceptable adverse impacts to health and wellbeing. However, further detailed assessments would be required to support this at the planning application stage.</p>	
5. To reduce the need to travel and promote use	✘	✓/✘	✓	✘	<p>Crime Rigg Quarry northern extension In order to extract the Basal Permian Sand, overlying Magnesian Limestone (estimated at 1.7 million tonnes) will need to be extracted first. This</p>	Whilst no known, current sustainable transport opportunities are directly linked to the

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
of sustainable transport options					<p>will increase vehicle movements over and above other proposals where this is not required. There are no known, directly linked sustainable transport opportunities associated with the transportation of minerals at this site. However, processing facilities exist on site, helping to limit trips to alternative facilities and the Quarry does provide opportunities to minimise trips through the back hauling of inert waste into the existing quarry, using lorries which are used to transport minerals from it. The site is well located to the A1(M) for the onwads transportation of minerals. Public Rights of Way (PROW) are unlikely to be affected.</p> <p>Low Harperley Quarry western extension Option requires removal of overburden but this will not be transported off site. Processing and stockpiling would also take place on site and via use of overland conveyor which will help to minimise the need to travel. However, the proposed allocation would impact on a number of existing public rights of way (PROW), requiring temporary or permanent diversions. There are also no current, directly linked sustainable transport opportunities associated with the transportation of minerals at this site, although there may be opportunities in the future associated with the Weardale Line. The site is well located to the A689 and A68 for the onwads transportation of minerals.</p> <p>Thrislington West Quarry</p>	<p>proposals at Crime Rigg, Low Harperley and Low Harperley the feasibility of transportation of minerals by rail for at least part of the onward journey either from both existing and new rail handling facilitates should be considered. The use of low or zero emission vehicles could also be considered by operators.</p> <p>Any temporary or permanent diversion of PROW near Low Harperley should be as attractive and convenient as possible to ensure continued use.</p>

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<p>No need for the prior removal of overburden and the existing rail connection to the site (connected to the East Coast Mainline via spur and rail loading facility) provides a sustainable transport opportunity associated with working the proposed area. On site processing facilities exist on site which can also minimise trips. No impact on PROW.</p> <p>Quarrington North In order to extract the underlying Basal Permian Sand in the northern part of the quarry, overlying Magnesian Limestone (reported as 9.3 million tonnes) will need to be extracted first. Whilst it is recognised that planning permission is in place for the working of magnesian limestone in the northern area, this has not yet commenced and compared to Crime Rigg requires approximately 9 times more overburden removal for an additional 46% more sand.</p> <p>There are no known, directly linked sustainable transport opportunities associated with the transportation of minerals at this site. However, processing facilities exist on site, helping to limit trips to alternative facilities and the Quarry potentially provides opportunities to minimise trips through the back hauling of inert waste into the existing quarry, using lorries which are used to transport minerals from it. The site is well located to the A1(M) for the onwards transportation of</p>	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					minerals. Public Rights of Way (PROW) are unlikely to be affected.	
6. To alleviate deprivation and poverty	✓	✓	✓	✓	<p>Crime Rigg Quarry northern extension The proposed extension is situated within a ward which is within the top 20-30% deprived nationally. The continued use of the area for mineral extraction may therefore help to safeguard existing and potentially create new jobs in a deprived part of the county.</p> <p>Low Harperley Quarry western extension The proposed extension is situated close to a ward within the top 10-20% deprived nationally. The continued use of the area for mineral extraction may therefore help to safeguard existing and potentially create new jobs in close proximity to a deprived part of the county.</p> <p>Thrislington West Quarry Part of the proposed working area is situated within a ward that is within the top 10% deprived nationally. The continued use of the area for mineral extraction may therefore help to safeguard existing and potentially create new jobs in a deprived part of the county.</p> <p>Quarrington North The proposed extension is situated close to a ward which is within the top 20-30% deprived nationally. The continued use of the area for mineral extraction may therefore help to safeguard existing and</p>	-

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					potentially create new jobs in close proximity to a deprived part of the county.	
7. To develop a sustainable and diverse economy with high levels of employment	✓✓	✓	✓✓	✓	<p>Crime Rigg Quarry northern extension Allocating the proposed northern extension to Crime Rigg Quarry (subject to obtaining planning permission) could extend the operational life of the quarry by 18-20 years, thereby contributing to safeguarding existing employment and potentially creating new direct and indirect jobs. Without agreement to work additional areas, the operator has indicated that existing permitted reserves could be exhausted by 2029, meaning that mineral extraction would cease, affecting current levels of employment. Permitted reserves would also become concentrated in a smaller number of sites which could impact on the resilience of County Durham's mineral supply. The potential mineral reserve is estimated at 910,000 tonnes of Basal Permian sand (and 1.775 million tonnes of magnesian limestone). Sales from the site could provide up to 40,000 tonnes of sand per annum, contributing to the local and regional economy.</p> <p>Low Harperley Quarry western extension Allocating the proposed western extension to Low Harperley Quarry (subject to obtaining planning permission) could extend the operational life of the quarry by 4-5 years, thereby contributing to</p>	ECON1: Conditions or other measures may be required to limit potential adverse impacts to Wolsingham show should a Western extension to Low Harperley be allocated within the Plan. Conditions may relate to operating hours over the duration of the show weekend for example.

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<p>safeguarding existing employment and potentially creating new direct and indirect jobs. Without agreement to work additional areas it is estimated that existing permitted reserves could be exhausted by 2032, meaning that mineral extraction would cease, affecting current levels of employment. Permitted reserves would also become concentrated in a smaller number of sites which could impact on the resilience of County Durham's mineral supply. The potential mineral reserve is estimated at 700,000 tonnes of fluvial sand and gravel and sales from the site could provide up to 150,000 tonnes of sand per annum, contributing to the local and regional economy. However, it is recognised that a western extension would move mineral working closer to Wolsingham showground which hosts the Wolsingham show on an annual basis, supporting the visitor and rural economy. Conditions may be required to avoid or minimise any potential adverse effects for the duration of the show.</p> <p>Thrislington West Quarry Allocating the proposed sand extraction area at Thrislington West Quarry could extend the operational life of the quarry by 20 years, thereby contributing to safeguarding existing employment opportunities and potentially creating new direct and indirect jobs. Without agreement to work additional areas, existing permitted reserves could be exhausted by 2025 at this Quarry, meaning that</p>	

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					<p>mineral extraction would cease, effecting current levels of employment. Permitted reserves would also become concentrated in a smaller number of sites which could impact on the resilience of County Durham's mineral supply. The potential mineral reserve is estimated at 5.8 million tonnes of basal Permian sand and sales from the site would provide up to 300,000 tonnes of sand per annum, contributing to the local and regional economy.</p> <p>Quarrington North The northern part of the quarry has planning permission until February 2042 for the extraction of magnesian limestone (albeit a new scheme of modern working and restoration conditions need to be agreed). Allocating the underlying area for the extraction of basal Permian sand (subject to obtaining planning permission) could extend the operational life of the quarry by 15 years, associated employment and ensure a continued supply of sand to the local and regional economy from the quarry beyond 2027. However, unlike the other options, Old Quarrington Quarry is less likely to close during the Plan period, due to existing permissions for the northern part of the site along with inert waste disposal void space which is yet to be created elsewhere within the quarry. The potential mineral reserve is estimated at 1.7 million tonnes of basal Permian sand (and 9.3 million tonnes of magnesian limestone) and sales from the site could provide up</p>	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					to 56,000 tonnes of sand per annum, contributing to the local and regional economy.	
8. To reduce the causes of climate change	×	×	×	×	<p>All proposals will extend the operational life of existing quarries in County Durham and associated greenhouse gas emissions. The SA also recognises that the Government has committed to phasing out new, non zero-emission heavy goods vehicles weighing 26 tonnes and under by 2035, with all new HGV's sold in the UK to be zero emissions by 2040. From 2035 onwards there may therefore be a declining quantity of HGV related emissions as older HGV's are phased out. Operators may also have their own carbon reduction commitments that they are working towards meeting.</p> <p>Crime Rigg Quarry northern extension This option would require the removal of 2,610,000 tonnes of mineral over a 18-20 year period. Whilst this is less mineral than Thrislington, working of the extension area may be more carbon intensive due to the need to first remove overlying mineral, (1.7 million tonnes of magnesian limestone), undertake blasting operations and transport overlying minerals off site. Whilst opportunities exist to minimise trip generation, unlike Thrislington Quarry there are no known opportunities for the use of sustainable modes of transport.</p> <p>Low Harperley Quarry western extension The allocation of this site is likely to generate the least carbon emissions as it would work a lower</p>	If any of the sites are allocated within the Plan and planning permission is sought, applications should be supported by an assessment of greenhouse gas emissions and an evaluation of their significance against net zero targets.

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					<p>quantity of minerals over a shorter time period (700,000 tonnes over 4-5years). No blasting would be required and the site would not generate additional transport emissions associated with the removal of overlying minerals.</p> <p>Thrislington West Quarry This option would require the removal of 5.8 million tonnes of basal permian sand over a twenty year period. Whilst this is more mineral than would be extracted at Crime Rigg, on balance this site could be less carbon intensive as:</p> <ul style="list-style-type: none"> • the mineral extracted contributes directly to meeting the identified need • there would be no need to remove overlying minerals, undertake blasting operations or transport overburden from site. • there are opportunities to make use of existing rail connections <p>Quarrington North Emissions associated with the working of the northern part of the quarry are likely to be greater than the other options as (subject to obtaining planning permission), working of the underlying sand resource would commit to minerals working and lock in associated emissions for a greater length of time (until 2057) and beyond the target date by which carbon neutrality within the county should be achieved by. Whilst it is recognised that</p>	

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					<p>advances in automotive and other technologies/opportunities may move on over the duration of mineral working, helping to further minimise emissions it is considered precautionary to predict very negative impacts against this SA objective at this stage.</p> <p>Working of the northern area would be second only to Thrislington Quarry in terms of quantitative extraction of sand resource required but without the sustainable transport opportunities. Whilst planned for, access to the underlying sand also requires the prior extraction of magnesian limestone. This has not yet commenced and is greater in quantitative terms than the overlying magnesian limestone at Crime Rigg.</p>	
9. To respond and enable adaptation to the inevitable impacts of climate change	?	✓/X	?	?	<p>Crime Rigg Quarry northern extension Mineral extraction (magnesian limestone and basal permian sand) would remove some of the Magnesian Limestone principal aquifer and therefore has the potential to affect hydrology and the qualitative status of groundwater supplies which may be exacerbated by extreme weather events such as drought or intense rainfall. Overall predicted effects are uncertain until further detailed assessment becomes available. Site lies in Flood Zone 1 and therefore the proposed extension has a low probability of flooding from surface waters.</p> <p>Low Harperley Quarry western extension 1</p>	<p>If any of the sites are allocated within the Plan and planning permission is sought, hydrogeological assessments will be required to inform the planning decision and any associated mitigating measures and conditions. The assessment would also need to take into account the cumulative impacts of minerals</p>

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					<p>The site lies adjacent to the River Wear and Gallows Beck. The site is located within Flood Zone 3 and within a functional flood plain and is therefore at risk of flooding from the River Wear and its tributaries. However, it may be possible to locate ancillary facilities in areas at lower risk of flooding. Assessments will need to be undertaken to ensure that the site can be worked without increasing flood risk elsewhere. However, working of this area could provide greater opportunities to deliver flood attenuation as part of the restoration.</p> <p>Thrislington West Quarry Basal Permian Sand forms part of the Magnesian Limestone Principal aquifer. Deepening the existing void would remove more of the aquifer and therefore has the potential to affect hydrology and the qualitative status of groundwater supplies which may be exacerbated by extreme weather events such as drought or intense rainfall. Overall predicted effects are uncertain until further detailed assessment becomes available. The proposed site lies in Flood Zone 1 and therefore has a low probability of flooding from surface waters.</p> <p>Quarrington North Basal Permian Sand forms part of the Magnesian Limestone Principal aquifer. Following the removal of permitted magnesian limestone, the removal of the underlying basal Permian sand would remove more of the aquifer and therefore has the potential</p>	<p>working and other activities for the sites located on the Principal Aquifer.</p> <p>In relation to Low Harperley, a flood risk assessment should be undertaken to ensure that ancillary facilities are located in areas of least risk and the site can be worked in a way which avoids increasing flood risk elsewhere.</p>

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					to affect hydrology and the qualitative status of groundwater supplies which may be exacerbated by extreme weather events such as drought or intense rainfall. Overall predicted effects are uncertain until further detailed assessment becomes available. The proposed site lies in Flood Zone 1 and therefore, working of the northern area has a low probability of flooding from surface waters.	
10. To protect and enhance biodiversity and geodiversity	✓/x	✓/x	0	xx	<p>Crime Rigg Quarry northern extension The proposal is not situated within any designated wildlife sites but will result in the direct loss of the majority of habitat within the area (9.5ha). However, as the majority of this is arable land, it is anticipated to be of low ecological value. Further Assessment would be required to identify the presence of protected species. Due to the proximity of the extension to Crime Rigg Quarry SSSI (designated for its geological importance) there may be opportunity to restore the extension in a way which exposes and creates features of geodiversity interest. Please also note that the site lies outside of the Nutrient Neutrality catchment area within County Durham as defined by Natural England for the protection of sensitive Habitats Regulations sites.</p> <p>Low Harperley Quarry western extension The proposal is not situated within any designated wildlife sites but will result in the direct loss of the majority of habitat within the area (20ha). However, as the majority of this is arable land, it is anticipated to be of low ecological value. Further Assessment</p>	<p>If any of the sites are allocated within the Plan and planning permission is sought, proposals should be supported by ecological assessments in order to identify the presence or absence of protected/priority species and any associated mitigation measures. Biodiversity net gain will need to be achieved for each proposal.</p> <p>If Quarrington North is allocated, proposals will need to demonstrate further that adverse effects can be avoided or that the benefits of</p>

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					<p>would be required to identify the presence of protected species. However, the site is within 180 metres of Wiserley Hall Local Wildlife site and the impact of dust, noise etc would need to be fully assessed and any necessary mitigation implemented. Opportunities to provide biodiversity net gains and contribute towards nature recovery in County Durham should be implemented as part of restoration proposals. Please also note that the site lies outside of the Nutrient Neutrality catchment area within County Durham as defined by Natural England for the protection of sensitive Habitats Regulations sites.</p> <p>Thrislington West Quarry As working will take place within an existing quarry void, it is not likely to have any additional adverse impacts on biodiversity or geodiversity. Any likely significant effects to Thrislington SAC have also been screened out by the Habitats Regulations Assessment (HRA). As the site allocation lies within the Nutrient Neutrality catchment area within County Durham as defined by Natural England for the protection of sensitive Habitats Regulation sites, this has been considered further. It is however, considered that this site allocation can delivered without causing additional nutrient enriched water to enter the designated site. This is because the site is not agricultural land. Lying within the quarry void there are no nutrient enriched soils to be removed or stockpiled and therefore there is no risk of nutrients</p>	<p>the development outweigh the harm. If deterioration to ancient woodland is likely to occur following the application of standoff distances, exceptional circumstances will need to be demonstrated and a suitable compensation strategy will need to be provided.</p>

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					<p>leaching out into surface and groundwater or issues associated with any run-off from soils. It is envisaged that water within the quarry void will be managed as existing.</p> <p>Quarrington North The allocation of the site will indirectly result in the loss of habitat although this impact is associated with the removal of permitted overlying magnesian limestone. It is recognised the whilst not subject to the proposed allocation, the limestone would be required to be worked, to then access the underlying basal Permian sand. The revised, allocation area also falls outside of Cassop Vale National Nature Reserve (NNR), Cassop Vale Site of Special Scientific Interest (SSSI) and Cassop Vale area on ancient and semi-natural woodland. There would therefore be no direct impacts to these designations. However, very negative, indirect effects could still occur from:</p> <ul style="list-style-type: none"> • Exceeding critical loads of nutrient enrichment from dust, nitrogen deposition and other airborne pollutants to the SSSI and its associated magnesian limestone grassland and plants. • Changes to water supply. Natural England have advised the Council that the designated sites, calcareous flushes need base rich water 	

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					<ul style="list-style-type: none"> Vibrations from blasting and other quarrying activities required to access the sand. This could damage the designated sites' interest features or cause risk to people visiting the sites <p>Increased noise levels could also negatively impact on people's enjoyment and visitation of Cassop Vale NNR and SSSI.</p> <p>The intended application of stand off / buffer distances from the designated sites may help to minimise or avoid indirect impacts from air pollution and vibration but this is uncertain at this point in time. Stand off / buffer distances may not address potential impacts to water supply.</p> <p>Due to proximity to these designations, it is considered precautionary to predict very negative effects against this SA objective at this stage.</p> <p>Restoration of the site should aim to provide biodiversity net gain and support coherent ecological networks.</p> <p>Please note that the proposed allocation falls outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. Infilling with inert waste is also unlikely to cause nutrient enrichment to water resources. The Habitats Regulations Assessment (HRA) of the M&WDPD has also screened out any</p>	

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					likely significant effects to Special Areas of Conservation (SAC) or Special Protection Areas (SPA) linked to the proposal.	
11. To protect and enhance the quality and character of landscape and townscape	✓/x	xx	0	xx	<p>Crime Rigg Quarry northern extension Site is not located within a local or nationally designated landscape. The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'enhance'. The landscape assessment of the site has advised that the working of reserves in this area would be unlikely to result in significant landscape and visual effects subject to detailed design and particularly in respect of the use of screening landforms.</p> <p>Low Harperley Quarry western extension The site is located within a local landscape designation – within an area identified as an Area of Higher Landscape Value (AHLV) in the County Durham Plan. The landscape assessment of the site has advised that the working of the of reserves in this area would be likely to result in some significant effects on a valued landscape and localised significant visual effects during the operational period. Longer term effects would depend on the nature of the restoration but could be be low, neutral or beneficial if features appropriate to the floodplain including naturalistic waterbodies, wet woodland and wet pasture are created. As the potential for significant effects have been identified within the landscape assessment, it is considered</p>	<p>If any of the sites are allocated within the Plan and planning permission is sought, proposals should be supported by a detailed appraisal of impact on landscape and visual impact. Measures to mitigate the landscape and visual impact of working should be sought where needed and restoration proposals should contribute towards local landscape enhancement.</p> <p>Low Harperley Quarry: Consideration should be given to the mitigation potential identified within the Landscape assessment - The longer-term effects of operations could be mitigated by</p>

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					<p>precautionary to predict very negative effects against this SA objective at this stage.</p> <p>Thrislington West Quarry Site is not located within a local or nationally designated landscape. As working will take place within an existing quarry void which is visually contained, landscape and visual impacts are assessed as neutral.</p> <p>Quarrington North The revised allocation area is not covered by any national or local landscape designations. However, the site occupies part of the most notable, attractive and intact spur of the limestone escarpment (between Cassop Vale and Old Quarrington Vale). The site also occupies elevated ground and is visible in views from a wide range of near, middle distance and long distance views to the north, north-east and west. Land to the immediate north lies within an area identified in the County Durham Plan as an Area of Higher Landscape Value (AHLV). The landscape assessment has taken into account the impact of both magnesian limestone and sand extraction, given that limestone extraction would be required initially in order to access the sand. Overall, the assessment concluded that the working of limestone reserves in the permission area could be undertaken without significant landscape or visual effects if appropriately designed. Given the sites' role as part of a sensitive landscape feature and its</p>	<p>restoring the site to land uses and features appropriate to, or characteristic of, the floodplain including naturalistic waterbodies, wet woodland and wet pasture. With that mitigation, long term effects on landscape character could be low, neutral or beneficial. The short and medium term effects of the operational site in views form the valley floor could be mitigated to some degree by advanced planting to the northern boundary in the west, offsite hedgerow works east of the Bradley Beck and screening features along the Weardale Railway. Mitigation of effects in views from higher ground would be more difficult although effects could be reduced to some</p>

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					<p>visibility in important views there remains potential for significant effects and this will need to be assessed in detail to inform the extent of extraction and the detailed design of site operations and restoration.</p> <p>As the potential for significant effects have been identified within the landscape assessment, it is considered precautionary to predict very negative effects against this SA objective at this stage.</p>	<p>degree by progressive restoration and seeding of operational ground.</p> <p>Quarrington North: Further information on the precise operational activities, including those that could be visible on the skyline would require detailed investigation to inform design.</p>
12. To protect and enhance cultural heritage & the historic environment	0	x	0	xx	<p>Crime Rigg Quarry northern extension The site is not located within a Conservation Area and will have no direct impact on heritage assets. The Heritage Impact Assessment undertaken of the site concluded that the impact on the setting of a scheduled monument (Shadforth Tower), listed buildings and Shadforth Conservation Area would be either nil or neutral. The Council's archaeological team have also previously confirmed that archaeological potential is likely to be limited.</p> <p>Low Harperley Quarry western extension The site is not located within a Conservation Area and will have no direct impact on heritage assets. The Heritage Impact Assessment undertaken of the</p>	<p>If any of the sites are allocated within the Plan and planning permission is sought, proposals should be supported by an appraisal of impact on heritage along with an archaeological evaluation</p> <p>In relation to Quarrington North, further detailed investigation of the</p>

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					<p>site concluded that the proposed workings would cause no harm to the significance (physical fabric) of any of the heritage assets identified within the study zone, while the impact upon the setting of the majority of the heritage assets would either be nil or minor and not anticipated to be harmful. The impact within the setting of the group at Bradly Hall may potentially be low adverse, possibly mitigated by screening measures, future land restoration would change this to neutral in the longer term. The archaeological assessment of the existing Low Harperley sand and gravel permission concluded that the site and its surroundings are of very low archaeological sensitivity and working is very unlikely to encounter presently unknown archaeological remains.</p> <p>Thrislington West Quarry As working will take place within an existing quarry void it is unlikely that there will be any effect on heritage assets, including archaeological potential. The Heritage Impact Assessment undertaken of the site concluded that the proposed additional extractions would not have any direct effect on the significance (physical fabric) of any identified heritage asset within the study zone. The impact upon the setting(s) of the heritage assets identified would be nil and neutral</p> <p>Quarrington North</p>	<p>specific operations will be required to determine effects further. Any harm to the setting of Durham World Heritage Site, Conservation Areas and non-designated heritage assets will require clear and convincing justification and will need to be weighed against the public benefits of the proposal.</p>

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					<p>The site is not located within a Conservation Area and will have no direct impact on heritage assets. The Heritage Impact Assessment (HIA) undertaken of the site concluded that the proposed workings would cause no harm to the significance (physical fabric) of any of the heritage assets identified within the study zone. However, the impact upon the setting(s) of Durham World Heritage Site, Old Cassop Conservation Area and some Non-Designated heritage assets close by would potentially be harmful. The landscape assessment also confirmed that the site sits in the backdrop to views of the Durham Castle and Cathedral World Heritage Site from the north-west, and operations on the skyline could be potentially harmful to its setting, requiring careful assessment.</p> <p>In relation to other heritage assets identified within the HIA, the impact would be anticipated to be either nil or minor and neutral. As the site lies within the boundary of the existing planning permission, it is assumed that there will be no anticipated or limited impacts to archaeology.</p> <p>As there is potential harm to the setting of the World Heritage Site, the potential for very negative effects have been predicted against this SA objective.</p>	
13. To protect and improve air, water and	x	x	x	x	<p>Crime Rigg Quarry northern extension Air: Requires blasting to remove overlying Magnesian Limestone which is likely to increase</p>	If any of the options are allocated within the Plan and planning permission is sought,

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soil resources					<p>dust emissions to air compared to other options which do not.</p> <p>Water: Situated on the Magnesian Limestone Escarpment which is a principal aquifer and is fully situated within groundwater Source Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). High risk of pollution to groundwater. However, no dewatering is undertaken within the current quarry and the potential reserves are above the water table. The site is in close proximity to a Beck and a pond.</p> <p>Soil: Situated on approx. 9.5ha grade 3 agricultural land which may be best and most versatile agricultural land depending upon whether it is grade 3a or grade 3b land. Careful management of soils will be required due to need to remove overburden.</p> <p>Low Harperley Quarry western extension Air: Requires removal of overburden but this is likely to be via soil stripping as opposed to blasting, so potentially less dust creation than Crime Rigg and Old Quarrington Options. Vehicle emission to air also likely to be less than these options due to a lower quantity of available sand for extraction and associated haulage.</p> <p>Water: The site lies adjacent to the River Wear, Gallows Beck and is also within a ground water vulnerability area as identified by the Environment</p>	<p>proposals should be supported by dust management strategies and hydrological assessments. Where applicable, agricultural land classification assessments and a soil management strategy will also be required.</p>

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					<p>Agency where aquifers are vulnerable to pollution because of the type of soil cover. It may be possible to work the extension area above the groundwater level which would minimise risk of pollution to groundwater resources. However, further hydrological assessment would be required, and measures will be required to avoid pollution of adjacent surface resources and groundwater.</p> <p>Soil: Situated on 20ha grade 3 agricultural land which may be best and most versatile agricultural land depending upon whether it is grade 3a or grade 3b land. Careful management of soils will be required due to need to undertake soil and overburden stripping works.</p> <p>Thrislington West Quarry Air: would not require the removal of overlying magnesian limestone to access sand resources so limited/no dust emissions to air as a result of blasting. Opportunities to utilise sustainable transport modes could also minimise vehicle emission to air more than other options. Other mitigation measures would still be required to limit dust emission e.g. HGV wheel washing etc.</p> <p>Water: Situated on the Magnesian Limestone Escarpment which is a principal aquifer and is partially situated within groundwater Source Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). High</p>	

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					<p>risk of pollution to groundwater and potential reserves may be below the water table as dewatering is currently undertaken within the quarry. The site is not however within close proximity to surface water resources.</p> <p>Soil: The site is an existing quarry so there would be no impact to agricultural land and limited impact to soil resources.</p> <p>Quarrington North Air: Emissions to air associated with the working of the northern part of the quarry are likely to be greater than the other options as (subject to obtaining planning permission), working of the underlying sand resource would commit to minerals working and lock in associated emissions for a greater length of time (until 2057). Working of the northern area would be second only to Thrislington Quarry in terms of quantitative extraction of sand resource required but without the sustainable transport opportunities. Whilst planned for, access to the underlying sand also requires the prior extraction of magnesian limestone. This has not yet commenced and is greater in quantitative terms than the magnesian limestone at Crime Rigg so more blasting, transportation and processing of minerals is likely to be required, all of which can emit dust and other emissions to air.</p>	

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					<p>Water: Situated on the Magnesian Limestone Escarpment which is a principal aquifer and the majority of the norther area is situated within groundwater Source Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). High risk of pollution to groundwater. However, the operator has advised that the sand within the allocation area is above the water table. The site is in close proximity to a couple of ponds.</p> <p>Soil: A large part of the proposed allocation which lies outside of the Cassop Vale National Nature Reserve (NNR) and Cassop Vale Site of Special Scientific Interest (SSSI) is agricultural land. However, this agricultural land overlies the existing Old Quarrington planning permission so will be impacted as an indirect consequence of the allocation.</p>	

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14. To reduce waste and encourage the sustainable and efficient use of materials	✘	✔	✔	✔	<p>Crime Rigg Quarry northern extension Requires the extraction of magnesian limestone where no further provision of this mineral is currently required. Therefore, does not contribute towards the efficient use of materials/resources.</p> <p>Low Harperley Quarry western extension Working of the area would enable the full recovery of sand and gravel within this part of the River Wear and would not require the extraction of other minerals where no further need is required.</p> <p>Thrislington West Quarry Working of the area would enable the full recovery and use of resources from the site without additional extraction of magnesian limestone.</p> <p>Quarrington North Whilst the allocation would require the prior extraction of magnesian limestone, this unlike Crime Rigg has already been permitted and is included in reserves that contribute to the steady and adequate supply of this mineral type. Working of the underlying sand resource would therefore enable the full recovery and use of resources from the site.</p>	-
15. To improve the sustainability of minerals extraction	✔/✘	✔/✘	✔	✘	All of the options considered can make a meaningful contribution to the seven year landbank that the Council is required to maintain at 2035 and annual demand requirements. The Joint Local Aggregates Assessment advised that in order to maintain the	As for all mitigation measures above. Thrislington West Quarry contributes the

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and use and reduce adverse impacts on communities and the environment					<p>landbank, provision should be made to enable a further 5.059 million tonnes of sand and gravel to be extracted. All options can contribute towards safeguarding jobs, associated training and can help communities within deprived areas. All options also have good access to the strategic road network where transportation by road is required.</p> <p>Crime Rigg Quarry northern extension In terms of quantitative provision, at 910,000 tonnes of sand, this option would provide the third greatest level of supply.</p> <p>To summarise, the key differentiating, sustainability issues for the option are that its allocation would help to secure the continuation of the quarry and associated employment beyond 2029 with limited environmental impacts. The main constraint to overcome would be the high risk of pollution to groundwater resources, although it may be possible to work reserves above the water table. However, the option would extend any existing impacts to communities by a further 18-20 years and may increase traffic for a period of time due to the need to first remove 1.7 million tonnes of overlying magnesian limestone and undertake concurrent working with the existing quarry in order to access the basal permian sand in the extension area. No further provision of Magnesian Limestone is required, so the option represents a less efficient use of the county's mineral resources and will also</p>	<p>most to need, is of a greater economic imperative to allocate than other options and will generally minimise social and environmental impact through working of an existing quarry void. However, impacts to groundwater will be a key constraint to overcome.</p> <p>In the event that a further allocation is required, on balance Crime Rigg is predicted to have more positive economic effects and less adverse environmental effects (subject to impact to groundwater being overcome) than Low Harperley. However, there is potential for more adverse social impacts than Low Harperley which will need to be mitigated.</p>

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					<p>increase environmental impacts related to vehicle and carbon emissions and blasting other over options where the prior removal and transportation of rock is not required. Whilst opportunities to minimise trips exist, there are no known, current sustainable transport opportunities linked to the working of this option.</p> <p>The pros and cons for the option in terms of its sustainability are summarised as follows: Pros</p> <ul style="list-style-type: none"> • Onsite processing facilities and opportunities for back hauling of inert waste can help to minimise the need to travel • No impact on PROW • Allocation would help to secure the continuation of this quarry in County Durham beyond 2029, jobs and its contribution towards the economy and resilience of the sector • Unlikely to be significant ecological constraints and opportunity to expose and create features of geological interest • No impact on local or national landscape designates and unlikely to incur significant landscape and visual impacts • No or neutral impacts to heritage assets 	<p>From the information provided, Quarrington North is considered to be the least sustainable option. The option has the potential for the most adverse impacts to the environment, will prolong impacts to communities for the longest and there is less of an economic imperative for allocation. It is recognised that some of the potential very negative environmental effects predicted may either be avoided or minimised to acceptable levels if the extent of the working area is revised.</p>

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					<ul style="list-style-type: none"> • Whilst high risk of pollution to groundwater resources, the reserves could potentially be worked above the water table <p>Cons</p> <ul style="list-style-type: none"> • Requires the removal of overlying magnesian limestone where there is no need for additional provision • Need to remove overlying mineral will increase social and environmental impacts over above options where this is not required e.g. vehicle movements, dust and carbon emissions • Extends any existing impact of minerals working on communities by 18-20 years and delays restoration benefits • No known opportunities for use of sustainable transport • Situated on the principal magnesian limestone aquifer, groundwater source protection zone 3 and nitrate vulnerable zone • Close to a pond • May incur the loss of best and most versatile agricultural land. <p>Low Harperley Quarry western extension In terms of quantitative provision, at 700,000 tonnes of sand, this option would provide the lowest level of supply.</p>	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<p>To summarise, the key differentiating, sustainability issues for the option are that its allocation could contribute to supply in a way that is unlikely to significantly extend the time period and impact of minerals working on communities. Allocation would contribute towards keeping the quarry open and protecting existing employment, albeit this would only be for 4-5 years. There would potentially be less risk of groundwater pollution compared to other options as not located on a principal aquifer and there could be opportunities to deliver flood attenuation measures as part of restoration. However, compared to Crime Rigg and Thrislington, the option adversely impacts a local landscape designation and would have some adverse impacts on the setting of heritage assets. The option may also incur a greater loss of best and most versatile agricultural land compared to Crime Rigg. Compared to all the options, there is also higher potential risk of surface water pollution due to proximity to the River Wear and Gallows Beck.</p> <p>The pros and cons for the option in terms of its sustainability are summarised as follows:</p> <p>Pros</p> <ul style="list-style-type: none"> Requires soil and some overburden stripping works but unlikely to require blasting and the working of the extension is unlikely to increase traffic above existing levels 	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<ul style="list-style-type: none"> • Existing onsite processing facilities can help to minimise trip generation • Allocation would help to secure the continuation of this quarry in County Durham beyond 2029, jobs and its contribution towards the economy and resilience of the sector (albeit only for a period of 4-5 years) • Contributes to supply without significantly extending time period of existing impacts of minerals working on communities • Potentially less impact on settlements due to rural location • Assumed to generate the lowest carbon emissions • Provides opportunities to deliver flood attenuation as part of restoration • Unlikely to be significant ecological constraints • Some but lower risk of groundwater pollution and potential to work above water table • Does not require removal of minerals where there is no need for further supply <p>Cons</p> <ul style="list-style-type: none"> • No known, current opportunities for use of sustainable transport (although may be future opportunities associated with the Weardale Line) 	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<ul style="list-style-type: none"> • Will have some impact on Public Rights of Way • Only extends operational life of quarry and associated employment by 4-5 years • May be a 'bad neighbour' in relation to Wolsingham showground • Location within functional floodplain increase risk of flooding to ancillary facilities • Located within a local landscape designation (AHLV) and some significant landscape and visual impacts during operation • Some potential adverse impacts to the setting of heritage assets at Bradley Hall • Higher potential risk of surface water pollution than others • May incur the loss of best and most versatile agricultural land and potentially more than associated with the Crime Rigg option due to extent of site. <p>Thrislington West Quarry In terms of quantitative provision, at 5.8 million tonnes of sand, this option would provide the highest level of supply.</p> <p>To summarise, the key differentiating, sustainability issues for the option are that working within an existing quarry void, avoids the need to remove overburden and minimises the social and</p>	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<p>environmental impacts of minerals working whilst ensuring the full recovery of minerals from the quarry. Ecological, landscape and heritage impacts are predicted to be nil or neutral and there would be no loss of agricultural land. Levels of minerals traffic are not considered to be over and above existing levels and there are opportunities for the use of rail to transport minerals. Allocating this option will also contribute towards securing the continuation of the quarry and associated employment. Economically, this option may be a greater priority for allocation as reserves are expected to be exhausted sooner than the other options i.e. by 2025. However, the option would extend any existing impacts of minerals working to communities by a further 20 years. The key environmental constraint that would need to be overcome is the potential impact on groundwater resources. Whilst like Crime Rigg and Old Quarrington, this option is located on the principal magnesian limestone aquifer and within groundwater source protection zone 3 and a nitrate vulnerable zone, potential reserves may need to be worked below the water table, increasing risk further.</p> <p>The pros and cons for the option in terms of its sustainability are summarised as follows: Pros</p> <ul style="list-style-type: none"> As working would take place within the existing quarry void there no requirement to remove overlying mineral, avoiding the need 	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<p>to blast, transport and process additional minerals and the associated social and environmental impacts of doing so</p> <ul style="list-style-type: none"> • Ensures full recovery of resources within the quarry without the need to remove further magnesian limestone, for which there is no current need for further supply • Allocation would help to secure the continuation of this quarry in County Durham beyond 2025, jobs and its contribution towards the economy and resilience of the sector • Working the void will not increase vehicle movements over and above existing • Opportunities to make use of existing rail head for the sustainable transport of minerals • Existing onsite processing facilities can help to minimise trip generation • Working within an existing quarry void limits ecological, heritage, landscape and visual impacts to nil or neutral. (The impacts to Thrislington SAC have also been screened out) • No impact on agricultural land • Lowest risk of causing pollution to surface water resources of all the options <p>Cons</p>	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<ul style="list-style-type: none"> • Extends any existing impact of minerals working on communities by 20 years and delays restoration benefits • Situated on the principal magnesian limestone aquifer, nitrate vulnerable zone and northern extend falls within groundwater source protection zone 3. Option poses highest risk of pollution to groundwater resources as reserves may need to be worked below the water table. <p>Quarrington North In terms of quantitative provision, at 1.7 million tonnes of sand, this option would provide the second highest level of supply.</p> <p>To summarise, the key differentiating, sustainability issues for the option are that whilst its allocation could secure the continued supply of sand from the site beyond 2027 it would extend any existing impact of mineral working on communities by the longest time period i.e. until 2057. Whilst positive economic effects are predicted in relation to extending the operation life of the quarry there is less of an economic imperative to allocate the site compared to other options. This is because the quarry has permission for working until 2042 and unlike other options will not close if additional provision of mineral is not made. Compared to other options and based on the information provided, this</p>	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<p>option also has the potential to have the most adverse impact on biodiversity and heritage. Whilst not directly impacting a local landscape designation, this option, like Low Harperley, also has the potential for significant landscape and visual impacts. Key potential impacts include impacts to a Site of Special Scientific Interest (SSSI), National Nature Reserves, ancient woodland, setting of the Durham World Heritage Site, Cassop Conservation Area, non designated heritage assets and potential for significant landscape and visual impacts. The option is also assumed to be the most carbon intensive due to scale of mineral working required, lack of sustainable transport opportunities and duration of mineral working. Whilst permitted, the option would disproportionately require approximately 9 times more removal of overlying magnesian limestone than Crime Rigg (a further 7.6 million tonnes) for an additional 46% more sand than Crime Rigg. Like Crime Rigg the option also has a high risk of impact to groundwater resources but it may be possible to work reserves above the water table.</p> <p>The pros and cons for the option in terms of its sustainability are summarised as follows: Pros</p> <ul style="list-style-type: none"> Onsite processing facilities and opportunities for back hauling of inert waste can help to minimise the need to travel 	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<ul style="list-style-type: none"> • Extends operational life of quarry and associated employment by 15 years (to 2057) and ensures a continued supply of sand beyond 2027 • Whilst high risk of pollution to groundwater resources, the reserves could potentially be worked above the water table • Whilst access to sand resources first requires the removal of overlying mineral this is already permitted (along with removal of agricultural land) and the magnesian limestone reserves are counted towards the provision of a steady and adequate supply of crushed rock <p>Cons</p> <ul style="list-style-type: none"> • Extends existing impact of minerals working on communities by 15 years and overall option would lock in mineral working at the site until at least 2057 • Potential for some increase in vehicle movements over and above existing • Whilst permitted, the option requires the greatest removal of overlying magnesian limestone (7.6 million tonnes more than at Crime Rigg) For the scale of removal, the option will only deliver a further 46% more sand than Crime Rigg • Less of an economic imperative to allocate as quarry has planning permission until 2042 and unlike other options will not close 	

SA/SEA Object. Number	Sand Allocation Option: Crime Rigg Quarry northern extension	Sand Allocation Option: Low Harperley Quarry western extension	Sand Allocation Option: Thrislington West Quarry	Sand Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
					<ul style="list-style-type: none"> • Assumed to be more carbon intensive than other options due to scale of mineral working required, lack of sustainable transport opportunities and duration of mineral working. • Potential for very negative indirect impacts to national wildlife designations (SSSI and NNR) and ancient woodland which is an irreplaceable habitat • Potentially very negative landscape and visual impacts. • Potentially harmful to the setting of the World Heritage Site, a Conservation Area and some non-designated heritage assets • Situated on the principal magnesian limestone aquifer, groundwater source protection zone 3 and nitrate vulnerable zone • Close to two ponds 	

Table B3: Potential Inert Waste Disposal Options

SA/SEA Object. Number	Inert Waste Allocation Option: Crime Rigg Quarry (scenario 1: rectify current restoration profile)	Inert Waste Allocation Option: Crime Rigg Quarry (scenario 2: low level restoration)	Inert Waste Allocation Option: Crime Rigg Quarry (scenario 3: high level restoration)	Inert Waste Allocation Option: Cold Knuckle Quarry	Inert Waste Allocation Option: Quarrington North	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	0	0	No clear link for all options. The options would contribute towards disposing of inert construction and demolition waste associated with the building of new housing (and other infrastructure) that cannot otherwise be recycled or recovered.	-
2. To promote strong secure communities	0	0	×	0	×	<p>With all options it is recognised that working within existing operational quarries may be preferable to areas where no activity or impact to communities is currently occurring i.e. dormant mineral sites or landraise proposals. However, there may still be adverse effects to communities associated with infilling active mineral sites with inert waste and each option is assessed as follows:</p> <p>Crime Rigg Quarry (Scenario 1) The proposed site allocation is a quarry void within the eastern part of the operational area of Crime Rigg Quarry. Current planning permission for the site requires restoration to be completed by the end of 2024 and for this part of the quarry</p>	Traffic and Transport Assessments would be required for all sites. This should include an assessment of individual and cumulative impacts with other minerals and waste activities in the area.

					<p>to be restored to a low level so that suitable faces could be left exposed, providing a replacement area of geological SSSI for the western part of the quarry which is designated as SSSI and is being infilled with waste. However, a planning application is being prepared to extend the timescale to reflect the remaining mineral extraction, voidspace and infill rate. Capacity at the site could be exhausted by 2029/30. Subject to approval, restoration of the existing site is anticipated to be by 2032. The operator have advised that there are several practical issues with the approved restoration contours that could be improved by amendment. This scenario would result in a minor extension of the landfill towards the quarry void and could provide 434,000 cubic metres of net capacity for inert waste, amounting to approximately 3.26 years of capacity with existing permitted reserves. Amending the restoration contours is not anticipated to increase vehicle movements over and above existing baseline levels and will not extend the operational life of the quarry and associated HGV movements near to settlements (Sherburn Hill, Ludworth and Shadforth) beyond the timescale that planning is intended to be sought for i.e. 2032. Neutral effects are predicted.</p> <p>Crime Rigg Quarry (Scenario 2) As for scenario 1 but this option further extends disposal and restoration operations into the eastern quarry void. The contours for the design would fall to the 'toe' of the northern quarry wall and is estimated by the Council to increase capacity by approximately 1,541,000 cubic metres net. Potentially the site allocation would enable approximately 200,000 tonnes (133,000 cubic metres) of inert waste to be imported per annum. This is commensurate with the existing scale of</p>	<p>Planning proposals should also be supported by measures outlining how site security and community safety will be achieved.</p>
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					<p>inert waste disposal within the quarry so any adverse effects to communities in the mid to longer term may not increase over and above existing. However, based on figures provided and with remaining capacity at the end of 2020, this scenario could extend the operational life of the quarry and associated HGV movements near to settlements (Sherburn Hill, Ludworth and Shadforth) until 2041 i.e a total of 12 years and a further 9 years beyond the 2032 timescale that planning is intended to be sought for. The potential for minor negative effects are predicted.</p> <p>Crime Rigg Quarry (Scenario 3) As for scenario 1 and 2 but this option would result in the complete restoration of the quarry void to surrounding land levels. This is estimated by the Council to increase capacity by approximately 3,226,000 cubic metres (net). However, based on figures provided and with remaining capacity at the end of 2020, this scenario could extend the operational life of the quarry and associated HGV movements near to settlements (Sherburn Hill, Ludworth and Shadforth) until 2054 i.e. a total of 25 years and a further 22 years beyond 2032. Whilst levels of inert waste imported per annum are likely to be commensurate with the existing scale of disposal, negative effects are predicted due to the significant increase to the duration that the site will be worked.</p> <p>Cold Knuckle Quarry Cold Knuckle Quarry forms part of a larger quarry known as Old Quarrington and Cold Knuckle Quarry. Inert waste has been imported and landfilled in Old Quarrington quarry for a number of years. The allocation would enable the sale of 0.9 million tonnes of magnesian limestone which</p>	
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					<p>would otherwise be extracted and used to achieve the previously approved restoration at Cold Knuckle Quarry. Alternatively, the operator wishes to substitute the magnesian limestone with the importation of 400,000 cubic metres of inert waste for use in the reconstruction of the escarpment face and extend the existing landfill operation at Old Quarrington Quarry into Cold Knuckle Quarry. The permitted mineral extraction and inert fill would be undertaken in a phased manner and is intended to be complete by 2033. The sale of the magnesian limestone which would have otherwise been set aside on site and import of inert waste is likely to increase vehicle movements compared to the original proposal. However, HGV movements would in effect represent a continuation of current operations, but minor negative effects are predicted as it would continue such movements for an additional 2.4 years to communities, the nearest including Old Quarrington, Bowburn and Quarrington Hill. Cumulative impacts with the proposed allocations at Old Quarrington are unlikely to occur due to the differing time periods within which infilling and mineral extraction activity would occur.</p> <p>Quarrington North In addition to the proposed allocation for the extraction of basal Permian sand in the northern part of the site once the permitted, overlying magnesian limestone is extracted, the operator proposes that the void created should be allocated for inert landfill, providing capacity for 4.93 million cubic metres of inert waste. No information has been provided on the intended duration or timing of the inert waste disposal but based on current tipping rates, the Council has calculated that an allocation is being sought for 30 years. The Council has also assumed that</p>	
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						disposal would not commence until after 2041 based on Environment Agency remaining void space capacity data and information from the operator regarding void space which is yet to be created. This option could therefore, potentially extend the operational life of the quarry until 2071. In terms of permitted daily vehicle numbers, a significant increase in vehicle movements over current levels are not anticipated with the proposed allocation (individually or in combination with the proposed sand allocation) but there may be some. Negative effects are predicted as the option would extend the duration of working by an estimated 30 years. The nearest settlements include Old Quarrington, Bowburn and Quarrington Hill.	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	✓	✓	0	✓	<p>Crime Rigg Quarry (Scenario 1) Rectifying the current approved restoration profile is unlikely to safeguard existing employment and associated training beyond the timescale that planning is intended to be sought for i.e., 2032. Neutral effects are predicted.</p> <p>Crime Rigg Quarry (Scenario 2) This scenario would safeguard existing employment for an additional 9 years beyond the timescale that planning is intended to be sought for and could lead to training opportunities which are linked to employment up until this point i.e. 2041</p> <p>Crime Rigg Quarry (Scenario 3) This scenario would safeguard existing employment for an additional 22 years beyond the timescale that planning is intended to be sought for and could lead to training opportunities which are linked to employment up until this point i.e. 2054</p>	-

						<p>Cold Knuckle Quarry Minor positive. Working of the existing quarry void would safeguard existing employment for an additional 2.4 years and could lead to training opportunities which are linked to employment up until this point i.e. 2033</p> <p>Quarrington North This scenario would safeguard existing employment for an estimated additional 30 years and could lead to training opportunities which are linked to employment up until this point i.e., 2071.</p>	
4. To reduce health inequalities and promote healthy lifestyles	?	?	?	?	?	<p>Crime Rigg Quarry (Scenario 1) The area within Crime Rigg quarry where the proposed infilling with inert waste is proposed is within 0.5km of Ludworth, 1.2km east of Sherburn Hill and within 0.6km of residential properties at Chruchill Terrace. Given the distances involved, inert waste could potentially be imported without any significant impacts to health and wellbeing (e.g. as a result of dust, noise, odour etc). Further detailed assessments would be required to support this at the planning application stage, including an assessment of cumulative impacts. Please note that the potential amendment of the restoration contours could enable better public access to the restored site for recreation purposes for those with mobility issues.</p> <p>Crime Rigg Quarry (Scenario 2) As for scenario 1, although provides a further 1,107,000 cubic metres capacity enabling the importation of a greater volume of inert waste over a longer time period</p> <p>Crime Rigg Quarry (Scenario 3) As for scenarios 1 and 2, although this scenario provides a further 2,792,000 cubic metres capacity than scenario 1 and a further 1,685,000</p>	Detailed assessments on the impact of working the proposals on human health and wellbeing (including cumulative impacts) would be required to inform any planning decision.

						<p>cubic metres than scenario 2. Of the scenarios, this will enable the greatest importation of waste over the longest time period.</p> <p>Cold Knuckles Quarry The closest settlements to the quarry are Old Quarrington and Quarrington Hill. The access road to the quarry passes within approximately 200 metres of properties within Old Quarrington. The closest properties to the site are Quarrington Farm approximately 100 metres to the west, properties on Church Street some 150 metres to the southwest, the Heather Lad Inn 20 metres to the east and Cassop Hill some 400 metres to the east. Given that operations are likely to be similar to existing operations taking place within the quarry, are for a relatively short duration and due to distances involved, inert waste could be potentially imported into this part of the quarry without any significant impacts to health and wellbeing (e.g. as a result of dust, noise etc). Further detailed assessments would be required to support this at the planning application stage. Please note that this option provides the lowest additional capacity and is therefore likely to require the least importation of inert waste. However, it will require the sale and movement of 0.9 million tonnes of magnesian limestone that would have otherwise been used for restoration purposes on site.</p> <p>Quarrington North This option is similar to Cold Knuckles Quarry with some minor variations in terms of distances from properties. However, the closest properties are situated closer to the existing active areas of Old Quarrington and Cold Knuckles Quarry than the proposed northern part of the site. Compared to Cold Knuckles Quarry (and Crime Rigg</p>	
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						scenarios 1 and 2), this proposed allocation will however, be operational for longer. Given that operations are anticipated to be similar to existing operations, and due to distances involved, inert waste could be potentially imported into this part of the quarry without any significant impacts to health and wellbeing (e.g. as a result of dust, noise etc). The northern part of the quarry already has planning permission for the extraction of limestones so it is assumed that this can be worked without unacceptable adverse impacts to health and wellbeing. Further detailed assessments would be required to support this at the planning application stage. Please note that this option provides the greatest additional capacity and is therefore likely to require the greatest importation of inert waste.	
5. To reduce the need to travel and promote use of sustainable transport options	0	x	xx	x	xx	<p>All options provide opportunities to minimise trips through the back hauling of inert waste using lorries which are used to transport minerals from it.</p> <p>Crime Rigg Quarry (Scenario 1) Amending the restoration contours will increase capacity for inert waste infilling at this site by 434,000 cubic metres. Assuming that waste is tipped based on anticipated levels (200,000 tonnes per annum) and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this could result in 8,000 laden vehicle movements per annum (29 in and 29 out) per day from the proposed waste operation and 26,080 trips. However, this scenario is not anticipated to increase vehicle movements over and above existing baseline levels and will not extend the operational life of the quarry and associated travel requirements associated with the option beyond the timescale that planning is intended to be sought for i.e.</p>	<p>Opportunities to minimise trips through the back hauling of inert waste using lorries which are used to transport minerals from it should be realised and sought as part of planning conditions. The use of low or zero emission vehicles could also be considered by operators.</p>

					<p>2032. Public Rights of Way (PROW) are unlikely to be affected any more than by present quarry operations although some mitigation may be required. Minor negative effects are predicted.</p> <p>Crime Rigg Quarry (Scenario 2) As for scenario 1 but this scenario provides a further 1,107,000 cubic metres capacity and will therefore increase numbers of trips associated with filling it with inert waste (albeit vehicle numbers may be comparable with levels conditioned by existing planning permissions). Assuming that waste is tipped based on anticipated levels (200,000 tonnes per annum) and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this could result in 8,000 laden vehicle movements per annum (29 in and 29 out) per day from the proposed waste operation. For an additional operational period of 9 years beyond 2032 (and scenario 1) this could increase the number of trips by 72,000.</p> <p>Crime Rigg Quarry (Scenario 3) As for scenario 1 and 2 but this scenario provides a further 2,792,000 cubic metres capacity than scenario 1 and a further 1,685,0000 cubic metres than scenario 2 and will therefore increase numbers of trips associated with filling it with inert waste (albeit vehicle numbers may be comparable with levels conditioned by existing planning permissions). Assuming that waste is tipped based on anticipated levels (200,000 tonnes per annum) and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this could result in 8,000 laden vehicle movements per annum (29 in and 29 out) per day from the proposed waste operation. For an additional operational period of</p>	<p>Any additional impacts to PROW and mitigation measures required as a result of importing inert waste should be considered as part of the preparation of any future planning application.</p>
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						<p>22 years beyond 2032 (and scenario 1) this could increase the number of trips by 176,000.</p> <p>Cold Knuckles Quarry This proposed allocation provides the least additional capacity for inert waste compared to the other options but will also require the transportation of 0.9 million tonnes of magnesian limestone from the site which would have otherwise been set aside and used to achieve the previously approved restoration profile at the quarry. Assuming that waste is tipped based on anticipated levels (200,000 tonnes per annum) and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this could result in 8,000 laden vehicle movements per annum (29 in and 29 out) per day from the proposed waste operation. For an extended operational period of 2.4 years this could incur 19,200 additional trips. Public Rights of Way (PROW) are unlikely to be affected any more than by present quarry operations, although some mitigation may be required.</p> <p>Quarrington North At 4.93 million tonnes, this option provides the greatest additional capacity and is therefore likely to require the greatest importation of waste. Assuming that waste is tipped based on anticipated levels (200,000 tonnes per annum) and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this could result in 8,000 laden vehicle movements per annum (29 in and 29 out) per day from the proposed waste operation. For an extended operational period of 30 years this could incur 240,000 additional trips. Public Rights of Way (PROW) are unlikely to be affected any more</p>	
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						than by present quarry operations, although some mitigation may be required.	
6. To alleviate deprivation and poverty	0	✓	✓	0	✓	<p>Crime Rigg Quarry (Scenario 1) The quarry is situated within a ward which is within the top 20-30% deprived nationally. Rectifying the current approved restoration profile is unlikely to contribute towards safeguard existing employment in a deprived area beyond the timescale that planning is intended to be sought for i.e., 2032. Neutral effects are predicted.</p> <p>Crime Rigg Quarry (Scenario 2) This scenario would contribute towards safeguarding existing employment and potentially create new jobs in a deprived part of the county for an additional 9 years beyond the timescale that planning is intended to be sought for (i.e. to 2040)</p> <p>Crime Rigg Quarry (Scenario 3) This scenario would contribute towards safeguarding existing employment and potentially create new jobs in a deprived part of the county for an additional 22 years beyond the timescale that planning is intended to be sought for (i.e. to 2054)</p> <p>Cold Knuckles Quarry The quarry is situated close to a ward within the top 20-30% deprived nationally. This option would contribute towards safeguarding existing employment and potentially create new jobs in close proximity to a deprived part of the county for an additional 2.4 years.</p> <p>Quarrington North The quarry is situated close to a ward within the top 20-30% deprived nationally. This option would</p>	-

						contribute towards safeguarding existing employment and potentially create new jobs in close proximity to a deprived part of the county for an additional 30 years.	
7. To develop a sustainable and diverse economy with high levels of employment	X	✓	✓✓	✓	✓✓	<p>Crime Rigg Quarry (Scenario 1) Crime Rigg Quarry is one of County Durham's three remaining inert landfill void sites. Whilst rectifying the current approved restoration profile would improve access to a farm and provide additional capacity, it is may be insufficient to ensure disposal operations throughout the Plan period and could result in closure of the landfill operation, associated employment and contribution to the region prior to 2035. Inert waste disposal operations would become concentrated in a smaller number of sites which could impact on the resilience of County Durham's waste management sector.</p> <p>Crime Rigg Quarry (Scenario 2) This option further extends disposal and restoration operations into the eastern quarry void increasing capacity by approximately 1,541,000 cubic metres net. This scenario could extend the operational life of the inert landfilling operations at the quarry until 2041 i.e a total of 12 years and a further 9 years beyond the 2032 timescale that planning is intended to be sought for. This scenario therefore ensures continued inert landfilling operations and safeguards associated employment throughout the plan period and for 6 years beyond this. However, the number of years worked beyond the Plan period would depend on several factors including start date and actual disposal rates. Should the site be allocated the proposal would provide for both direct and indirect employment associated with disposal of inert waste. There would also be opportunities for</p>	The potential cessation of landfill operations during the Plan period at Crime Rigg Quarry under scenario 1 is a residual effect.

						<p>businesses, including local companies to supply goods and services throughout the life of the site allocation.</p> <p>Crime Rigg Quarry (Scenario 3) This option involves the complete restoration of the quarry void with inert waste to surrounding land levels, increasing capacity by approximately 3,226,000 cubic metres net. This scenario could extend the operational life of the inert landfilling operations at the quarry until 2054 i.e a total of 25 years and a further 22 years beyond the 2032 timescale that planning is intended to be sought for. This scenario therefore ensures continued inert landfilling operations and safeguards associated employment throughout the plan period (to 2035) and for 19 years beyond this. However, the number of years worked beyond the Plan period would depend on a number of factors including start date and actual disposal rates. Should the site be allocated the proposal would provide for both direct and indirect employment associated with disposal of inert waste. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the site allocation. The deliverability of the economic effects predicted is also highly dependent upon the viability of a northern extension to Crime Rigg becoming the replacement geological SSSI.</p> <p>Cold Knuckles Quarry Despite there not being a need for further magnesian limestone to be permitted, this option would enable the sale of 0.9 million tonnes of magnesian limestone from County Durham that would otherwise be sterilised through its use in site restoration. The provision of further waste disposal capacity within a quarry void adjacent to</p>	
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						<p>an existing inert landfill could increase capacity by 400,000 cubic metres net, supporting an additional 2.4 years of related employment. This will contribute to ensuring disposal operations continue at Old Quarrington and Cold Knuckle Quarry throughout the Plan period along with their associated benefits to the local economy.</p> <p>Quarrington North In addition to the proposed allocation for the extraction of basal Permian sand in the northern part of the site once the permitted, overlying magnesian limestone is extracted, the operator proposes that the void created should be allocated for inert landfill, providing capacity for 4.93 million cubic metres of inert waste. No information has been provided on the intended duration or timing of the inert waste disposal but based on current tipping rates, the Council has calculated that an allocation is being sought for 30 years with disposal activity assumed to commence from around 2041 to 2071. The option could therefore contribute towards safeguarding employment at the quarry for a significant period of time in the longer term. Should the site be allocated, the proposal would provide for both direct and indirect employment associated with disposal of inert waste. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the site allocation.</p>	
8. To reduce the causes of climate change	X	X	XX	X	XX	<p>All proposals will extend inert waste landfilling activity to varying degrees within County Durham and associated greenhouse gas emissions. Please note that as the waste type is 'inert' there will be no landfill gases associated with the options. The SA also recognises that the Government has committed to phasing out new, non zero-emission heavy goods vehicles</p>	<p>If any of the sites are allocated within the Plan and planning permission is sought, applications</p>

						<p>weighing 26 tonnes and under by 2035, with all new HGV's sold in the UK to be zero emissions by 2040. From 2035 onwards there may therefore be a declining quantity of HGV related emissions as older HGV's are phased out. Operators may also have their own carbon reduction commitments that they are working towards meeting.</p> <p>Crime Rigg Quarry scenario 1 Amending the restoration contours will increase capacity for inert waste infilling at this site by 434,000 cubic metres and is estimated to incur 26,080 vehicle trips and associated emissions. Landfill operations at the quarry may cease by 2032 under this scenario but this could mean that additional capacity and associated emissions would need to be permitted elsewhere in the County.</p> <p>Crime Rigg Quarry scenario 2 Further extending disposal and restoration operations into the eastern quarry void will increase capacity for waste infilling at this site by approximately 1,541,000 cubic metres net. This is estimated to incur 72,000 vehicle trips and associated emissions. This option could lock in greenhouse gas emissions associated with inert waste landfilling within the county until 2041. Locally a target has been agreed for the county to be carbon neutral by 2045.</p> <p>Crime Rigg Quarry scenario 3 The complete restoration of the quarry void with inert waste to surrounding land levels, increases capacity for waste infilling at this site by approximately 3,226,000 cubic metres net. This is estimated to incur 168,000 vehicle trips and associated emissions. This option could lock in</p>	<p>should be supported by an assessment of greenhouse gas emissions and an evaluation of their significance against net zero targets.</p>
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						<p>greenhouse gas emissions associated with inert waste landfilling within the county until 2054 i.e. 9 years beyond the period that carbon neutrality within the county needs to be achieved.</p> <p>Cold Knuckles Quarry This proposed allocation substitutes the use of magnesian limestone with the importation of 400,000 cubic metres of inert waste to reconstruct the escarpment face and extend the existing landfill operation at Old Quarrington Quarry into Cold Knuckle Quarry. This is estimated to incur 19,200 vehicle trips and associated emissions.</p> <p>Quarrington North Emissions associated with this option could be greater than others as at 4.93 million cubic metres, this option provides the greatest level of inert landfill capacity and could lock in landfilling activity for the greatest length of time beyond the period that carbon neutrality within the county needs to be achieved (possibly to 2071). Whilst it is recognised that advances in automotive and other technologies/opportunities may have moved on by the time disposal activity could commence, helping to further minimise emissions it is considered precautionary to predict very negative impacts against this SA objective at this stage.</p>	
9. To respond and enable adaptation to the inevitable impacts of climate change	?	?	?	?	?	<p>All options are located on the Magnesian Limestone principal aquifer and infilling with inert waste could potentially affect hydrology and the qualitative status of groundwater supplies which may then be exacerbated by extreme weather events such as drought or intense rainfall. Overall predicted effects are uncertain until further detailed assessment becomes available. The cumulative impact of multiple inert waste operations (along with quarrying activity) is a key issue and will need to be considered through a</p>	<p>If any of the sites are allocated within the Plan and planning permission is sought, hydrogeological assessments will be required to inform the</p>

						planning application. All options are situated within in Flood Zone 1 and therefore inert waste landfill operations have a low probability of flooding from surface waters.	planning decision and any associated mitigating measures and conditions. The assessment would also need to take into account the potential cumulative impacts of landfill operations and minerals working for all options due to their location on the Principal Aquifer.
10. To protect and enhance biodiversity and geodiversity	0	x	xx	0	xx	Crime Rigg Quarry Scenario 1 The proposed allocation is situated within Crime Rigg Quarry Site of Special Scientific Interest (SSSI). The SSSI has been identified as of national importance in the Geological Conservation Review. The key risk to the SSSI from infilling with waste would be the concealment of existing exposed faces. However, rectifying the current restoration profile is unlikely to result in a significant amendment to the contours affecting the northern quarry face and there would therefore be no impacts on the integrity of the SSSI. However, the presence of notable Schedule 1 listed species at the quarry have been identified and additional infilling with waste compared to the previously approved restoration profile may increase levels of disturbance.	Crime Rigg Scenario 3 should only be considered for allocation if the proposed northern extension is also allocated in the Plan. Sufficient evidence will need to be provided at the planning application stage to demonstrate the

					<p>Suitable mitigation measures may need to be identified to ensure their continued protection. An ecological assessment will be required to identify whether there are any other notable species/habitats and mitigation provided. Minor negative effects predicted.</p> <p>Crime Rigg Quarry Scenario 2 The contours for the low level restoration within the eastern void would fall to the 'toe' of the northern quarry wall and should protect the integrity of Crime Rigg Quarry SSSI. However, as this scenario requires a greater level of infilling with waste it increases the risk of disturbance to protected species compared to scenario 1.</p> <p>Crime Rigg Quarry Scenario 3 Restoring to surrounding land levels as per this scenario would result in the burial of the SSSI and potential loss of habitat for protected species. These impacts are unlikely to be avoided and would need to be compensated for. In terms of the SSSI, Natural England have advised the Council that if a northern extension to the quarry is worked, they anticipate that the geological exposures within this extension area could be comparable with the existing SSSI. However, there are a lot of uncertainties and the proposal as submitted, is considered to have an unacceptable impact on the SSSI. Whilst this scenario is considered to have very negative effects overall it is recognised that restoring the quarry to predevelopment levels provides greater opportunities for the creation of range of habitats with a high ecological value compared to scenarios 1 and 2.</p> <p>Please note that the proposed scenarios at Crime Rigg Quarry fall outside of the Nutrient Neutrality</p>	<p>viability of the northern extension becoming the replacement SSSI. The applicant would also need to demonstrate that comparable special interest features will be exposed concurrently with the landfill operations.</p> <p>Mitigation measures may also be needed to ensure disturbance levels to protected species can be avoided or minimised to acceptable levels.</p> <p>The restoration of Cold Knuckle Quarry should as a minimum achieve the same level of benefits to biodiversity as existing</p>
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					<p>catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. Infilling with inert waste is also unlikely to cause nutrient enrichment to water resources. The Habitats Regulations Assessment (HRA) of the M&WDPD has also screened out any likely significant effects to Special Areas of Conservation (SAC) or Special Protection Areas (SPA) linked to the proposed allocations at Crime Rigg.</p> <p>Cold Knuckle Quarry Two local biodiversity and geodiversity designations overlie the proposed allocation, these being Old Quarrington Quarry Local Geology Site (LGS) and Quarrington Hill and Coxhoe Bank Local Wildlife Site (LWS). However, the impact to these sites has already been considered and found to be acceptable in the context of the existing permitted operation at the quarry and its restoration. Substituting magnesian limestone for inert waste to achieve the restoration is considered unlikely to cause any additional harm to biodiversity or geodiversity. However, the restoration of the site should as a minimum achieve the same level of benefits to biodiversity as existing proposals that aim to provide biodiversity net gain and support ecological networks.</p> <p>Please note that the proposed allocation is also within 286 metres of Quarrington Hill SSSI (to the south) and 250 metres of Cassop Vale SSSI, Cassop National Nature Reserve and ancient woodland (to the north). These designations will not be impacted directly by the proposal and any indirect effects are not considered likely to cause any additional harm than existing operations and the approved restoration. Neutral effects are therefore predicted.</p>	<p>proposals that aim to provide biodiversity net gain and support ecological networks.</p> <p>If the inert waste option at Quarrington North is allocated, proposals will need to demonstrate further that adverse effects can be avoided or that the benefits of the development outweigh the harm. If deterioration to ancient woodland is likely to occur following the application of standoff distances, exceptional circumstances will need to be demonstrated and a suitable compensation strategy will</p>
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					<p>Please note that the proposed allocation falls outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. The Habitats Regulations Assessment (HRA) of the M&WDPD has also screened out any likely significant effects to Special Areas of Conservation (SAC) or Special Protection Areas (SPA) linked to the proposal.</p> <p>Quarrington North The allocation of the site will indirectly result in the loss of habitat associated with the removal of permitted overlying magnesian limestone. It is recognised the whilst not subject to the proposed allocation, the limestone would be required to be worked, to then access the underlying basal Permian sand and create the void for inert waste. The revised, allocation area also falls outside of Cassop Vale National Nature Reserve (NNR), Cassop Vale Site of Special Scientific Interest (SSSI) and Cassop Vale area on ancient and semi-natural woodland. There would therefore be no direct impacts to these designations. However, very negative, indirect effects could still occur from:</p> <ul style="list-style-type: none"> • Exceeding critical loads of nutrient enrichment from dust, nitrogen deposition and other airborne pollutants to the SSSI and its associated magnesian limestone grassland and plants. • Changes to water supply. Natural England have advised the Council that the designated sites, calcareous flushes need base rich water • Vibrations from blasting and other quarrying activities required to create the 	<p>need to be provided.</p> <p>If any of the sites are allocated within the Plan and planning permission is sought, proposals should be supported by ecological assessments in order to identify the presence or absence of protected/priority species and any associated mitigation measures. Biodiversity net gain will need to be achieved for each proposal.</p>
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						<p>void. This could damage the designated sites' interest features or cause risk to people visiting the sites</p> <p>Increased noise levels could also negatively impact on people's enjoyment and visitation of Cassop Vale NNR and SSSI.</p> <p>The intended application of stand off / buffer distances from the designated sites may help to minimise or avoid indirect impacts from air pollution and vibration but this is uncertain at this point in time. Stand off / buffer distances may not address potential impacts to water supply.</p> <p>Due to proximity to these designations, it is considered precautionary to predict very negative effects against this SA objective at this stage.</p> <p>Restoration of the site should aim to provide biodiversity net gain and support coherent ecological networks.</p> <p>Please note that the proposed allocation falls outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. Infilling with inert waste is also unlikely to cause nutrient enrichment to water resources. The Habitats Regulations Assessment (HRA) of the M&WDPD has also screened out any likely significant effects to Special Areas of Conservation (SAC) or Special Protection Areas (SPA) linked to the proposal.</p>	
11. To protect and enhance the quality and character of landscape	✓/x	✓/x	✓	0	xx	Crime Rigg Quarry Scenarios 1 - 3 The proposed allocation is not located within a local or nationally designated landscape. The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with	If any of the sites are allocated within the Plan and planning permission is

<p>and townscape</p>						<p>a strategy of 'enhance'. The landscape assessment of the site has advised that the importation of waste would be unlikely to result in significant landscape and visual effects subject to detailed design. Scenario 3 could provide further benefits to landscape character and quality than the existing approved restoration as the highest level of landscape mitigation is likely to arise from restoration to something close to original levels and to an enhanced agricultural value with a high nature conservation value: limestone grassland, native woodland and species rich hedges.</p> <p>Cold Knuckles Quarry The proposed allocation is not covered by any national or local landscape designations. The site lies partly within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance' and partly within a Landscape Conservation Priority Area (LCPA) with strategy of 'conserve & restore'. It is considered that the restoration of the site would be likely to be identical or very close to that of the approved scheme with the removal of limestone and its replacement with inert materials undertaken broadly within the balance of cut and fill provided for in the approved scheme. There would be no material effect on the final restoration. Effects are therefore assessed as neutral.</p> <p>Quarrington North The revised allocation area is not covered by any national or local landscape designations. However, the site occupies part of the most notable, attractive and intact spur of the limestone escarpment (between Cassop Vale and Old Quarrington Vale). The site also occupies</p>	<p>sought, proposals should be supported by a detailed appraisal of impact on landscape and visual impact.</p> <p>Measures to mitigate the landscape and visual impact of working should be sought where needed and restoration proposals should contribute towards local landscape enhancement.</p> <p>Quarrington North - The effects of the precise extent of the void and activities on the skyline would need detailed investigation to inform design</p>
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						<p>elevated ground and is visible in views from a wide range of near, middle distance and long distance views to the north, north-east and west. Land to the immediate north lies within an area identified in the County Durham Plan as an Area of Higher Landscape Value (AHLV). The landscape assessment has taken into account the impact of both extraction and disposal activity, given that mineral extraction would be required initially in order to create the void. The assessment advised that the effects of the precise extent of the void and activities on the skyline would need detailed investigation to inform design. The importation of waste to restore to original levels could be beneficial in maintaining the integrity of the spur as a topographical feature but could involve more operational activities on the skyline. Overall, the assessment concluded that the working of limestone reserves in the permission area could be undertaken without significant landscape or visual effects if appropriately designed. Given the sites' role as part of a sensitive landscape feature and its visibility in important views there remains potential for significant effects and this will need to be assessed in detail to inform the extent of extraction and the detailed design of site operations and restoration.</p> <p>As the potential for significant effects have been identified within the landscape assessment, it is considered precautionary to predict very negative effects against this SA objective at this stage.</p>	
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<p>12. To protect and enhance cultural heritage & the historic environment</p>	<p>0</p>	<p>0</p>	<p>0</p>	<p>0</p>	<p>xx</p>	<p>Crime Rigg Quarry Scenarios 1-3 The proposed allocations are not located within a Conservation Area and will have no direct impact on heritage assets. The Heritage Impact Assessment undertaken of Crime Rigg Quarry concluded that the impact on the setting of a scheduled monument (Shadforth Tower), listed buildings and Shadforth Conservation Area would be either nil or neutral. As an operational quarry void, the proposed scenarios would have no archaeological potential.</p> <p>Cold Knucke Quarry The proposed allocation is not within 2km of a World Heritage Site, Scheduled Monument, Protected Wreck site, Registered Historic Park and Garden or Registered Battlefield. The Heritage Impacts Assessment undertaken did however assess effects on 1 Grade II listed building, 2 Conservation Areas, 4 Historic Environment Records, non-designated heritage assets and one site included on the local list of historic parks, gardens and designated landscapes. The Heritage Impact Assessment undertaken, concluded that the proposals would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The magnitude of effect upon the setting(s) of the heritage assets has been identified as either nil, or minor with the level of impact neutral. As an operational quarry void, the proposed scenarios would have no archaeological potential.</p> <p>Quarrington North The site is not located within a Conservation Area and will have no direct impact on heritage assets. The Heritage Impact Assessment (HIA) undertaken of the site concluded that the</p>	<p>If any of the sites are allocated within the Plan and planning permission is sought, proposals should be supported by an appraisal of impact on heritage along with an archaeological evaluation.</p> <p>In relation to Quarrington North, further detailed investigation of the specific operations will be required to determine effects further. Any harm to the setting of Durham World Heritage Site, Conservation Areas and non-designated heritage assets will require clear and convincing justification and will need to be</p>
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						<p>proposed workings would cause no harm to the significance (physical fabric) of any of the heritage assets identified within the study zone. However, the impact upon the setting(s) of Durham World Heritage Site, Old Cassop Conservation Area and some Non-Designated heritage assets close by would potentially be harmful. The landscape assessment also confirmed that the site sits in the backdrop to views of the Durham Castle and Cathedral World Heritage Site from the north-west, and operations on the skyline could be potentially harmful to its setting, requiring careful assessment.</p> <p>In relation to other heritage assets identified within the HIA, the impact would be anticipated to be either nil or minor and neutral. As the site lies within the boundary of the existing planning permission, it is assumed that there will be no anticipated or limited impacts to archaeology.</p> <p>As there is potential harm to the setting of the World Heritage Site, the potential for very negative effects have been predicted against this SA objective.</p>	weighed against the public benefits of the proposal.
13. To protect and improve air, water and soil resources	✓/✗	✓/✗	✓/✗	✗	✗	<p>Crime Rigg Quarry Scenarios 1-3</p> <p>Air: All scenarios will increase the level of inert waste imported to site compared to the existing approved restoration. This has the potential to increase dust arising and vehicle emissions. Scenario 3 is likely to increase emissions by the most as requires the most infilling.</p> <p>Water: Situated on the Magnesian Limestone Escarpment which is a principal aquifer and is fully situated within groundwater Source Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). High risk of pollution to groundwater. However, no</p>	If any of the options are allocated within the Plan and planning permission is sought, proposals should be supported by dust management strategies and

						<p>dewatering is undertaken within the current quarry, minerals are worked above the water table and infilling with inert waste compared to other waste types minimises the risk of pollution to groundwater. When submitting proposals due regard should be given to the Environment Agency's Landfill Technical Guidance: Environmental Permitting Landfill Sector Technical Guidance</p> <p>Soil: As a quarry void there is no agricultural land that could be affected. However, rectifying the current restoration profile under scenario 1 could improve stability and reduce soil erosion. Scenarios 2 and 3 could help to compensate for the loss of agricultural land because of mineral working.</p> <p>Cold Knuckle Quarry</p> <p>Air: This option will increase vehicle emissions to air as it requires the transportation of 0.9 million tonnes of magnesian limestone from the site which would have otherwise been set aside and used to achieve the previously approved restoration profile at the quarry, along with the importation of waste.</p> <p>Water: Situated on the Magnesian Limestone Escarpment which is a principal aquifer and is fully situated within groundwater Source Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). High risk of pollution to groundwater. However, no dewatering is undertaken within the current quarry and the operator have advised that the base of the current sand extraction and inert landfill lies above the water table. In addition, infilling with inert waste compared to other waste types minimises risk of groundwater pollution. When</p>	<p>hydrological assessments.</p> <p>When submitting proposals due regard should be given to the Environment Agency's Landfill Technical Guidance: Environmental Permitting Landfill Sector Technical Guidance</p>
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						<p>submitting proposals due regard should be given to the Environment Agency's Landfill Technical Guidance: Environmental Permitting Landfill Sector Technical Guidance</p> <p>Soil: As a quarry void there is no agricultural land that could be affected. Restoration of the site through the use of inert waste could compensate for the loss of agricultural land due to mineral working but this would occur in any event as part of the existing approved restoration.</p> <p>Quarrington North Air: Emissions to air associated with landfilling inert waste within the northern part of the quarry are likely to be greater than the other options as at a capacity of 4.93 million cubic metres, a greater level of inert waste could be tipped within the site along with associated dust and vehicle emissions.</p> <p>Water: Situated on the Magnesian Limestone Escarpment which is a principal aquifer and the majority of the northern area is situated within groundwater Source Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). High risk of pollution to groundwater. However, the operator has advised that base of the inert fill operations will be above the water table and are predicted to remain dry. In addition, infilling with inert waste compared to other waste types minimises risk of groundwater pollution. When submitting proposals due regard should be given to the Environment Agency's Landfill Technical Guidance: Environmental Permitting Landfill Sector Technical Guidance</p> <p>Soil: A large part of the revised allocation is agricultural land. Restoration of the site through</p>	
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						the use of inert waste could compensate for the loss of agricultural land due to mineral working but this would occur in any event as part of the existing permission.	
14. To reduce waste and encourage the sustainable and efficient use of materials	x	✓	x	✓	xx	<p>All of the options provide for the disposal of inert waste that that cannot be recycled or recovered further, although its use in the restoration of mineral sites may help to conserve primary resources such as soils which could otherwise be used for this purpose.</p> <p>The options are discussed in terms of how they contribute towards the longer term need for further inert waste disposal capacity beyond 2032. The capacity gap was identified by the County Durham Plan as 3,682,800 cubic metres to 2035. Void space at Bishop Middleham Quarry and Old Quarrington Quarry could collectively provide 5,445,210 cubic metres but there is uncertainty when these void spaces could become available and if this will be within the Plan period. At Bishop Middleham availability is dependent on mineral extraction being completed by 2029. Void space within the phase 5 area at Old Quarrington is dependent on planning permissions being granted to extend the duration of an existing permission and void space within the phase 6 area is only likely to be available following the extraction of permitted limestone in the northern part of the quarry i.e. beyond the Plan period.</p> <p>Crime Rigg Quarry Scenario 1 Rectifying the current restoration profile would result in a minor extension of the landfill towards the quarry void and could provide 434,000 cubic metres of net capacity for inert waste, amounting to approximately 3.26 years of capacity with existing permitted reserves. This scenario is</p>	<p>Unless further information can be provided to demonstrate otherwise, Crime Rigg scenario 1 and Quarrington North should be discounted as they do not contribute towards meeting the need for inert waste disposal between 2032 and 2035.</p> <p>If the sites are allocated within the Plan, they should be allocated for inert waste only and proposals will need to demonstrate that they will not result in an excessive over-provision of</p>

						<p>estimated to provide capacity to 2032 so is unlikely to contribute towards meeting the longer term need for further inert waste disposal capacity beyond 2032. Whilst the scenario represents a minor extension of the landfill, negative effects are predicted as it would provide further disposal capacity that is unlikely to contribute towards meeting a need.</p> <p>Crime Rigg Quarry Scenario 2 This option further extends disposal and restoration operations into the eastern quarry void and is estimated by the Council to increase capacity by approximately 1,541,000 cubic metres net. An additional 1,541,000 cubic metres is estimated to provide capacity to 2041. (This estimate assumes that deposits will be 200,000 tonnes per annum and even if the rate of disposal increases it will be limited by planning conditions relating to allowable vehicle movements to and from the site.) This option could therefore contribute towards meeting the identified capacity gap over the Plan period to 2035 but not all of the capacity will be used. If landfilling commences in 2030 at 200,000 tonnes per annum, it is estimated that by 2035, 665,000 cubic metres could be utilised leaving a remaining 876,000 cubic metres (or 57%) that could provide capacity for a further 6 years beyond the Plan period. Whilst the capacity gap would need to be reviewed to determine need beyond the Plan period it is considered unlikely that the option would result in the creation of excessive landfill provision beyond the Plan period.</p> <p>Crime Rigg Quarry Scenario 3 This option would result in the complete restoration of the quarry void to surrounding land levels. This is estimated by the Council to</p>	<p>landfill in the county.</p>
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						<p>increase capacity by approximately 3,226,000 cubic metres (net) and is estimated to provide capacity to 2054. This scenario therefore provides capacity over the Plan period to 2035 but not all of the capacity will be used. If landfilling commences in 2030 at 200,000 tonnes per annum it is estimated that by 2035, 665,000 cubic metres could be utilised leaving a remaining 2,561,000 cubic metres (or 79%) that could provide capacity for a further 19 years beyond the Plan period. Whilst the capacity gap would need to be reviewed to determine need beyond the Plan period there is a higher risk that given the quantity of remaining void space, excessive long term landfill provision could be created if other void space at Bishop Middleham and Old Quarrington also become available over the Plan period.</p> <p>Cold Knuckle Quarry This option though using inert waste to achieve the restoration of the quarry avoids the sterilisation of magnesian limestone. Whilst there is no quantitative need for magnesian limestone, the mineral would have been extracted as part of the original approved restoration and its sale as opposed to use in restoration represents a more efficient use of resources. The option is estimated to increase capacity by approximately 400,000 cubic metres (net) and is estimated to provide capacity to 2033 (i.e. within the Plan period only and will contribute towards identified need beyond 2032). There is unlikely to be remaining capacity beyond the Plan period and the option is not considered likely to result in the creation of excessive landfill provision over the medium term.</p> <p>Quarrington North</p>	
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						<p>This option will provide capacity for 4.93 million cubic metres of inert waste. However, it is assumed that disposal would not commence until after 2041 and therefore the option is unlikely to contribute towards meeting the identified capacity gap over the Plan period. Whilst the capacity gap would need to be reviewed to determine need beyond the Plan period there is also a high risk that the capacity could create excessive long term landfill provision. Very negative effects are therefore predicted.</p>	
<p>15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment</p>	✓	✗	✗✗	✓	✗✗	<p>All of the inert waste proposals will contribute towards the restoration of existing mineral sites. The Cold Knuckle Quarry option also prevents the sterilisation of minerals resources.</p> <p>In terms of reducing the adverse impacts on communities and the environment of restoring minerals sites the options can be ranked as follows from least to highest impact</p> <ol style="list-style-type: none"> 1. Crime Rigg Scenario 1 2. Cold Knuckle Quarry 3. Crime Rigg Scenario 2 4. Crime Rigg Scenario 3 5. Quarrington North 	<p>As for all mitigation measures above.</p>

Appendix C: Assessment of M&WDPD Policies

Table C1: Assessment Key

Effects Predicted	Symbol
Likely to have a very positive effect	✓✓
Likely to have a positive effect	✓
Minor effect / No effect / No clear link	0
Uncertain or insufficient information to determine effect	?
Likely to have a negative effect	×
Likely to have a very negative effect	××
Could have a positive or negative effect depending on implementation	✓/×
Timescale	Description
Short Term	Within the next 5 years
Medium Term	Over the Plan Period to 2035
Long Term	Beyond the Plan period
Likelihood of Effect	Certain / Probable / Possible / Uncertain
Spatial Scale	e.g., Regional/ Countywide/ *Settlement Name*/ Local (site specific)
Type of Effect	Permanent/ Temporary/ Direct/ Indirect/ Secondary/ Residual

Table C2: Policy MW1 General Criteria for Considering Minerals and Waste Development

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	Probable	Local	Indirect Temporary	<p>Minor positive impact</p> <p>Whilst there is no clear direct link between this policy and decent affordable homes. There is potential for this policy to safeguard decent homes by seeking to minimise individual and cumulative impacts on local amenities and communities, including impacts on housing.</p> <p>Policy wording states: Where appropriate, separation distances will be required between minerals and waste developments and occupied residential properties and other sensitive receptors.</p> <p>This would safeguard local homes.</p>	-
2. To promote strong secure communities	✓	✓	✓	Probable	Countywide	Direct and Temporary	<p>Ensuring that the cumulative impact of proposals, in addition to individual impacts will be taken into account and assessed will be key to ensuring strong, secure communities, particular where a number of quarries are operating within proximity to each other, such as in parts of the East Durham Limestone Plateau and along the A66 in southwest Durham.</p> <p>In addition, ensuring that proposals will not result in individual or cumulative unacceptable adverse impacts on the local and strategic road network may contribute towards reducing the adverse impacts of traffic (including HGV's) on communities and ensuring that road networks are safe to use and cross. By protecting the amenity of local communities from unacceptable adverse impacts, the policy may also contribute towards safeguarding the continued use of community facilities and services.</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	Probable	Local	Temporary	Minor positive impact Whilst there is no clear direct link between this policy and education, learning and the labour market. There is potential for this policy to safeguard education and learning by seeking to minimise individual and cumulative impacts on the amenity of local communities and other sensitive receptors, such as schools	-
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Probable	Countywide	Direct and Temporary	Ensuring that proposals will not result in individual or cumulative unacceptable adverse impacts on human health is directly compatible with SA objective 4. The supporting text to the policy identifies a range of potential sources of impact to health that would require consideration including visual impacts, light pollution, air pollution, noise, vibration, odour, vermin and birds, litter. Loss of recreational amenity through for example the loss of publicly accessible greenspace and impacts to public rights of way can also adversely impact on health and this issue could also be signposted within the supporting text, along with the benefits that could potentially be achieved on restoration of sites for this purpose. Criterion b, c and d which aim to ensure no unacceptable adverse impacts to the wider environment, public rights of way and climate change mitigation and adaptation also contribute positively to health and wellbeing.	SOC1 – Whilst Public Rights of Way (PROW) are referred to in the supporting text it may be useful to reference that the loss of recreational amenity through the loss of green infrastructure and impacts to PROW are an issue for consideration under human health and the amenity of local communities. The County Durham Plan policy on green infrastructure could be cross referred to
5. To reduce the need to travel and	✓	✓	✓	Probable	Countywide	Direct and Temporary	Ensuring that proposals will not result in individual or cumulative unacceptable adverse impacts on the local and strategic	ENV1 – The supporting text relating to traffic should include the expectation that applicants

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
promote use of sustainable transport options							road network may contribute towards reducing the travel requirements associated with proposals and indirectly encourage use of sustainable modes. The policy could be strengthened however by setting out the expectation that applicants should consider the use of sustainable modes of transport wherever possible	should consider the use of sustainable modes of transport wherever possible
6. To alleviate deprivation and poverty	0	0	0	Possible	Countywide	Indirect and Temporary	<p>Whilst there is not a direct link there is the potential minor positive effect.</p> <p>The alleviation of deprivation and poverty is not a direct aim of this policy, however, this policy has the potential to mitigate against deprivation and poverty related issues such as deprived areas being more likely have high pollution levels or be close to areas of high pollution levels, areas of heavy transport, or in areas close to waste operations</p> <p>The policy seeks to minimise individual and cumulative impacts of minerals and waste operations through the policy criteria checklist. This will act as a further check to mitigate deprivation and poverty related issues from cumulative impact of operations that individual operations may not have, as well as individual operations.</p>	-
7. To develop a sustainable and diverse economy with high levels of employment	x	x	x	Possible	Countywide	Direct and Indirect temporary effects	Previously, the SA sought to clarify whether businesses would be considered as a sensitive receptor under the provision of the policy and therefore whether they would be safeguarded from minerals and waste working which could in some cases prejudice their operation through noise, access issues	ECON1: Suggest reinstatement of criteria that takes into account the potential individual and cumulative impact of proposals on existing business.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							etc. This could include agricultural businesses in addition to existing employment on industrial estates for example. The removal of criteria relating to the operation of existing businesses may therefore result in a policy gap and the potential for negative economic effects are therefore predicted.	
8. To reduce the causes of climate change	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct and Potential for Permanent Effects	<p>The policy requires minerals and waste proposals to demonstrate that they will not result in individual or cumulative unacceptable adverse impacts on County Durham's ability to adapt and mitigate to meet the challenge of climate change.</p> <p>Whilst this wording could ensure that proposals for example do not prejudice the use of land that has been permitted to mitigate climate change, through for example woodland creation or renewable energy generation projects it is not clear that there is an expectation that minerals and waste proposals will need to include climate mitigation measures, and possibly offsetting measures as part of their applications from this wording. It is also not clear from the wording what the challenge is in respect of the Council's climate emergency and national net zero targets and that there is an expectation that certain applications should be supported by an assessment of greenhouse gas emissions and an evaluation of their significance against net zero targets. Whilst the supporting text provides further information on the requirements it is considered that this expectation should be</p>	<p>ENV2: amend policy text as follows or similar:</p> <p>Proposals for minerals and waste development will be permitted where it can be demonstrated that the proposal will not result in individual or cumulative unacceptable adverse impacts upon:</p> <p>County Durham's ability to transition to a net zero carbon future, and to effectively mitigate and adapt to climate change.</p> <p>The supporting text should include reference to the climate emergency targets for the county i.e. to be carbon neutral by 2045</p> <p>The supporting text could give recognition to the need for minerals and waste proposals to ensure they do not prejudice existing or planned uses of</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							made clearer up front in the policy text. In doing so this will help to further emphasise the commitment the Council and partners have taken to tackling climate change within County Durham and the need for everyone to play their part. Wording similar to that previously recommended through the SA process could be used.	<p>land for climate mitigation and adaptation purposes e.g. wind farms, solar farms, woodland creation, flood abatement etc</p> <p>Wording in the supporting text could be amended from 'Accordingly all future decision-making will need to consider how development can mitigate, adapt, avoid vulnerability and increase resilience to climate change.' To 'Accordingly, to inform decision making, all proposals will need to consider and identify how they can mitigate greenhouse gas emissions, adapt, avoid vulnerability and increase resilience to the impacts of climate change.'</p> <p>Add: in certain circumstances, the council may request an evaluation of the significance of greenhouse gas emissions to be undertaken where the proposal is not EIA development.</p> <p>This will give the Council greater flexibility over ensuring that further information is provided with proposals that may give rise to concern in</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
								respect of their impact on climate change.
9. To respond and enable adaptation to the inevitable impacts of climate change	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct and Potential for Permanent Effects	The policy criteria aims to ensure that minerals and waste proposals will not cause unacceptable adverse impacts, individually or cumulatively on flood risk or the ability to adapt to climate change. The consideration and protection of landscape, biodiversity, trees and hedges also contributes positively to this objective. However as mentioned as mitigation against SA objective 8, further information could be added to the supporting text to make it clear that proposal should also not prejudice the existing or planned use of land for climate adaptation purposes.	ENV3 as for ENV2.
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Probable	Countywide	Direct and Potential for Permanent Effects	In determining whether proposals will have either individual or cumulative unacceptable adverse effects, the policy requires the consideration of biodiversity and geodiversity including nationally and local protected sites, protected and priority species and habitats, and trees woodlands and hedges. The supporting text states that applicants will be required to demonstrate that their proposal will deliver a net gain for biodiversity. This is directly compatible with the SA objectives. Ensuring consideration is given to water resources will also contribute positively to this objective. Furthermore, the policy requires separation distances between minerals and waste development and sensitive receptors where appropriate. This could include for example separation distances to ensure that air pollutants are not dispersed to sensitive habitats. As currently worded, this element is couched within	ENV4 Reconsider position of policy wording relating to separation distances so that it is understood that this could benefit human health and the wider environment.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							human health and the amenity of local communities and it would be preferable if it were a standalone requirement, potentially placed at the end of the policy so that readers understand that it could be applied more widely.	
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Probable	Countywide	Direct and Potential for Permanent Effects	In determining whether proposals will have either individual or cumulative unacceptable adverse effects, the policy requires the consideration of protected landscapes and upon landscape character and quality. This is directly compatible with the SA objective. Ensuring that such consideration is also given to biodiversity and geodiversity and the best and most versatile agricultural land will also contribute positively to the protection and enhancement of landscape character and quality. The supporting text also advises on a number of considerations such as avoiding harm to mature landscape and topographic features, creating visually prominent extraction areas and minimising the visibility of plant.	
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Probable	Countywide	Direct and Potential for Permanent Effects	In determining whether proposals will have either individual or cumulative unacceptable adverse effects, the policy requires the consideration of the county's historic environment. This is directly compatible with the SA objective. Furthermore, the policy requires separation distances between minerals and waste development and sensitive receptors where appropriate. This could include for example separation distances to ensure that vibration does not impact on sensitive heritage assets. As currently worded, this element is couched	ENV5 As for ENV4

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							within human health and the amenity of local communities and it would be preferable if it were a standalone requirement, potentially placed at the end of the policy so that readers understand that it could be applied more widely.	
13. To protect and improve air, water and soil resources	✓	✓	✓	Probable	Countywide	Direct and Potential for Permanent Effects	<p>This policy will safeguard air water and soil resources as policy wording requires proposals to demonstrate that they will not result in individual or cumulative unacceptable adverse impacts upon:</p> <ul style="list-style-type: none"> • Surface water, groundwater and flood risk • Best and most versatile agricultural land and soils, • The local and strategic road network and the public rights of way network <p>Ensuing that there will also not be unacceptable adverse impacts on human health will also contribute towards ensuring that air pollutants do not exceed thresholds. The consideration of cumulative effects will be key to protecting groundwater resources on the Magnesian Limestone Principal aquifer where a number of quarries are currently operating.</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	x	x	x	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Previously, the policy included a criterion to ensure proposals consider their impact towards the efficient use of resources. This was considered to help draw attention towards the need to ensure that minerals are a finite resource and should be extracted only where needed and used in the most appropriate manner. They should also not be sterilised. The criterion was also useful in recognising that waste should be viewed as a resource and the need to drive waste management up the waste hierarchy and only dispose of it as a last resort.</p> <p>The removal of the criterion may therefore result in a policy gap and the potential for negative economic effects are therefore predicted.</p>	ENV6: Reinstate the criterion relating to the efficient use of resources and their conservation and associated supporting text
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓/x	✓/x	✓/x	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Whilst the policy will ensure that minerals working will not have unacceptable individual or cumulative impacts on a number of social and environmental receptors, as mentioned within this SA it could be strengthened further in relation to impacts to the business community, climate change and the efficient use of resources and their conservation. The requirement regarding stand off distances should also not be couched solely within the protection of human health and the amenity of local communities and should apply more widely to environmental receptors.</p>	As for all mitigation measures mentioned above.

Table C3: Policy MW2 Minerals Exploration

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	✓	0	0	Probable	Countywide	Direct and Temporary	<p>Mineral exploration proposals which do not constitute permitted development and would therefore be considered against the M&WDPD policy (and all other relevant Plan policies) could include those where the exploration would be carried out within 50 metres of any part of an occupied residential building or a building occupied as a hospital or school.</p> <p>As drafted the policy requires proposals to be in accordance with other relevant Plan policies and ensure that there will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities. This is likely to take account of issues such as traffic and transport impacts and any effects to residential areas or community facilities.</p> <p>The supporting text also recognises in relation to borehole proposals that it will be necessary that drilling rigs, well sites and all other associated facilities and infrastructure associated with exploration and appraisal are sited in the least sensitive location from which the target reservoir can be accessed,</p>	SOC1: Add the supporting text relating to drilling rigs etc into the policy as specific policy requirements.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>and that exploration and appraisal operations are agreed for a temporary period and that a comprehensive restoration strategy is agreed, together with a scheme of after-use and aftercare.</p> <p>However, it is recommended that this wording is moved into the policy as specific policy requirements. This may serve to further safeguard communities in the event that boreholes are required for lithium proposals.</p> <p>Please note that short term effects only are predicted in recognition that exploratory activities are usually short term and temporary.</p>	
3. To improve education, training and life-long learning, and maintain a healthy labour market	✓	0	0	Probable	Countywide	Direct and Temporary	<p>As mentioned against SA objective 2, proposals which do not constitute permitted development and may be determined against the draft policy could include those which are within 50 metres of schools.</p> <p>The policy requirement to ensure that there will be no unacceptable adverse impact on the amenity of local communities is considered to apply to any potentially noisy and disruptive activities to local schools and educational facilities.</p> <p>As for SA objective 2 it is recommended that the wording from the supporting text relating to drilling rigs etc could further safeguard the delivery of education and training if it was included within the main policy wording as specific requirements.</p> <p>Please note that short term effects only are predicted in recognition that exploratory activities are usually short term and temporary.</p>	SOC2: As for SOC1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Probable short term effects. Possible mid and longer term effects	Countywide and beyond in relation to groundwater drinking resources.	Direct and Temporary	<p>As mentioned against SA objective 2, proposals which do not constitute permitted development and may be determined against the draft policy could include those which are within 50 metres of occupied buildings including hospitals.</p> <p>The policy requirement to ensure that there will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities is likely to ensure short term effects such as noise, vibration or dust levels do not adversely impact on individual health and wellbeing or adversely affect recovery times within hospital. Safeguards may include for example, ensuring that no minerals exploration is carried out overnight. The requirement is also likely to ensure that the environment is protected from pollution which could have longer term effects on health if for example public drinking water is polluted.</p> <p>As for SA objective 2 it is recommended that the wording from the supporting text relating to drilling rigs etc could further safeguard health and wellbeing if it was included within the main policy wording as specific requirements.</p> <p>In addition, to help prevent public injury, criteria could be included within the policy relating to the restoration of land to its original condition following the cessation of exploration with trial pits and shallow boreholes.</p>	<p>SOC3: As for SOC1</p> <p>SOC4: Include the following wording or similar within the policy</p> <p>Excavations associated with trial pits or shallow boreholes should be progressively filled with material from the site, levelled and restored, so far as is practicable to its original or better condition within an agreed period of time.</p>
5. To reduce the need to travel and	×	0	0	Probable	Countywide	Direct and Temporary	Activities associated with mineral exploration are likely to increase the need to travel for a temporary period of time. Effects could be	ENV1: As for SOC4

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
promote use of sustainable transport options							minimised to some extent by ensuring that onsite material is used to restore trial pits and shallow boreholes.	
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link.	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	0	0	Possible	Countywide	Direct and Indirect temporary effects	As the policy is concerned with the consideration of the exploratory activity itself, rather than on the merits of any future proposal to extract minerals the effects predicted by the SA also relate to the short term direct and indirect employment opportunities which may be linked to mineral exploration. The potential for short term positive effects are therefore predicted.	-
8. To reduce the causes of climate change	x	x	✓/x	Probable	Countywide	Direct and Potential for Permanent Effects	<p>The short term activities relating to mineral exploration e.g. transportation of people and equipment, use of drilling equipment etc is likely to increase greenhouse gas emissions. Medium term effects are also predicted to be negative due to the length of time that carbon emissions remain in the atmosphere. The potential removal of trees could also impact upon carbon sequestration although in accordance with County Durham Plan Policy 40, suitable replacement planting should be provided.</p> <p>Longer term effects could be positive or negative depending on the afteruse of deep borehole sites e.g. if areas of woodland are created.</p>	ENV2: As for SOC4

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							As commented against SA objective 5, emissions associated with transport could be minimised by ensuring that onsite materials are used for restoring trial pits and shallow boreholes.	
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	Possible minor negative	Countywide	Direct and temporary	Depending on how close the water table is to the surface, both shallow and deep boreholes may result in physical disturbance of aquifers and groundwater resources. There is uncertainty as to whether exploration could artificially lower or raise groundwater levels which could potentially exacerbate any future drought or flooding conditions. However, any effects are predicted to be minor and temporary. The policy requires there to be no unacceptable adverse impacts on the environment so it is assumed that proposals will be accompanied by appropriate hydrogeological surveys and mitigation as necessary.	-
10. To protect and enhance biodiversity and geodiversity	x	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Mineral exploration proposals which do not constitute permitted development and would therefore be considered against the M&WDPD policy (and all other relevant Plan policies) could include any operation carried out within a site of special scientific interest (SSSI) which could also have dual designation as a National Nature Reserve, Special Area of Conservation (SAC) or Special Protection Area (SPA). The policy requirement to ensure conformity with other Plan policies (e.g. County Durham Plan policies 42: Internationally Designated Sites and 43: Protected Species and	ENV3: As for SOC1 ENV4: As for SOC4

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>Nationally and Locally Protected Sites) and that there will be no unacceptable adverse impact on the environment should ensure that exploration activity will not be permitted where it could have an adverse effect on the integrity of the site, result in the loss of irreplaceable habitat and with respect to SSSI's doesn't provide outweighing benefit. However, where permitted, some harm may still occur to biodiversity throughout the duration of the exploratory activity such as the removal of habitat and species disturbance. Such effects are likely to be temporary but could be minimised by ensuring that equipment associated with deep boreholes are located in the least sensitive location and that sites are comprehensively restored following cessation.</p> <p>It is recommended that the wording from the supporting text relating to drilling rigs etc could further safeguard biodiversity and geodiversity it if was included within the main policy wording as specific requirements. In addition, criteria could be included within the policy relating to the restoration of land following the cessation of exploration with trial pits and shallow boreholes. Positive medium to longer term effects are possible due to the need to conform with other policies which require the achievement of Biodiversity Net Gain.</p>	
11. To protect and enhance the quality and	x	✓	✓	Possible	Countywide	Direct and Potential for	Mineral exploration proposals which do not constitute permitted development and would therefore be considered against the M&WDPD policy (and all other relevant Plan	ENV5: As for SOC1 ENV6: As for SOC4

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
character of landscape and townscape						Permanent Effects	<p>policies) could include any operation carried out within the North Pennines Area of Outstanding Natural Beauty (AONB) and where any structure would exceed 12 metres in height.</p> <p>The policy requirement to ensure conformity with other Plan policies (e.g. County Durham Plan policies 38: North Pennines AONB) and that there will be no unacceptable adverse impact on the environment should ensure that exploration activity is not permitted where it is individually or cumulatively harmful to the special qualities of the North Pennines AONB or if the exploratory activity constitutes a major development it will only be permitted in exceptional circumstances and where it can be demonstrated to be in the public interest.</p> <p>However, where permitted, some adverse landscape and visual impacts may still occur throughout the duration of the exploratory activity such as changes to natural topography, erection of tall drilling rigs etc. Such effects are likely to be temporary but could be minimised by ensuring that equipment associated with deep boreholes are located in the least sensitive location and that sites are comprehensively restored following cessation.</p> <p>It is recommended that the wording from the supporting text relating to drilling rigs etc could further safeguard landscape character and quality it if was included within the main policy wording as specific requirements.</p> <p>In addition, criteria could be included within the policy relating to the restoration of land</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							following the cessation of exploration with trial pits and shallow boreholes. Positive medium to longer term effects are possible due to the need to conform with other policies which require development to enhance landscape quality and character where possible.	
12. To protect and enhance cultural heritage & the historic environment	x	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Mineral exploration proposals which do not constitute permitted development and would therefore be considered against the M&WDPD policy (and all other relevant Plan policies) could include any operation carried out within a site of archaeological interest and may also reasonably apply to Historic Battlefields, Conservation Areas, World Heritage Sites and where operations would be carried out within proximity to listed buildings or scheduled monuments. The policy requirement to ensure conformity with other Plan policies (e.g. County Durham Plan policies 44: Historic Environment) and that there will be no unacceptable adverse impact on the environment should ensure that exploration activity is not permitted where it would lead to substantial harm to, or total loss of the significance of a heritage assets unless it can be demonstrated that it is necessary to achieve substantial public benefit that outweighs that harm or loss. However, where permitted, some adverse impacts to the historic environment may still occur throughout the duration of the exploratory activity such as adverse effects to the setting of assets as a result of the erection of drilling rigs and associated infrastructure for deep boreholes. Such	ENV7: As for SOC1 ENV8: As for SOC4

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>effects are likely to be temporary but could be minimised by ensuring that equipment associated with deep boreholes are located in the least sensitive location and that sites are comprehensively restored following cessation.</p> <p>It is recommended that the wording from the supporting text relating to drilling rigs etc could further safeguard the historic environment if it was included within the main policy wording as specific requirements. Trial pits, shallow and deep boreholes may also impact on undiscovered archaeological resources and those best preserved in situ. However, they also provide the opportunity to record archaeology and increase public understanding of County Durham's heritage and culture. Positive medium to longer term effects are therefore possible.</p>	
13. To protect and improve air, water and soil resources	x	0	0	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Mineral exploration proposals which do not constitute permitted development and would therefore be considered against the M&WDPD policy (and all other relevant Plan policies) could include any operation where excavations would exceed 10 metres in depth or 12 square metres in surface area or more than 10 excavations are required. The policy requirement to ensure conformity with other Plan policies (e.g. County Durham Plan policies 14:Best and Most Versatile Agricultural Land and Soil Resources and Policy 35: Water Management) and that there will be no unacceptable adverse impact on the environment should ensure that emissions to air do not exceed national objectives, soil resources are managed and</p>	<p>ENV9: As for SOC1</p> <p>ENV10: As for SOC4</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>conserved in a viable manner and that exploration activity which could adversely affect the quality or quantity of surface or groundwater demonstrates that no adverse effects would occur or effects can be mitigated.</p> <p>However, where permitted, some adverse impacts to resources may still occur throughout the duration of the exploratory activity. Such effects are likely to be temporary but could be minimised by ensuring that equipment associated with deep boreholes are located in the least sensitive location and that sites are comprehensively restored following cessation.</p> <p>It is recommended that the wording from the supporting text relating to drilling rigs etc could further safeguard air, water and soil resources if it was included within the main policy wording as specific requirements. In addition, criteria could be included within the policy relating to the restoration of land following the cessation of exploration with trial pits and shallow boreholes and use of onsite materials.</p> <p>There is uncertainty as to whether there would be much potential to enhance soil or water quality beyond its original condition following the cessation of working so medium and longer term effects are currently predicted to be negligible.</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	0	0	0	-	-	-	As drafted there is no clear link between this policy and the SA objective. However, positive effects could be predicted if the policy makes reference to making use of onsite materials in restoration.	ENV11: As for SOC4
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓/x	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	The policy aims to ensure that there will be no unacceptable adverse social or environmental impacts when minerals exploratory activity is undertaken. However, the SA has identified that there is likely to be some inevitable adverse impacts to the environment as a result of minerals exploration albeit such effects will mostly be short term and temporary in nature. The policy could therefore be strengthened by ensuring that it makes specific requirements in relation to restoration which are not covered elsewhere in the Plan and deep boreholes. Positive medium and longer term effects are possible depending on restoration and after-use schemes.	As for all mitigation measures mentioned above.

Table C4: Policy MW3 Benefits of Minerals Extraction

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Ensuring that the community benefits of minerals extraction proposals are taken into account when determining planning applications could lead to the delivery of local community projects such as the provision of new or enhanced facilities or improvements to community green spaces and recreation areas for example. Effective consultation and engagement with communities is likely to be required to ensure that suitable benefits are proposed.	SOC1: Evidence of consultation with communities should be provided as part of that needed to enable the Council to assess the nature and significance of the benefits. This may be useful to stipulate in the supporting text to the policy.
3. To improve education, training and life-long learning, and maintain a healthy labour market	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Positive effects are possible where community benefits enhance or provide facilities or projects which contribute towards community education and life-long learning.	-
4. To reduce health	✓	✓	✓	Possible	Countywide	Direct and Potential	Positive effects are possible where community benefits enhance or provide	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
inequalities and promote healthy lifestyles						for Permanent Effects	facilities or projects which contribute towards health and wellbeing.	
5. To reduce the need to travel and promote use of sustainable transport options	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Positive effects are possible where community benefits enhance or provide facilities or projects which reduce the need to travel by meeting needs locally or enhance provision of sustainable transport modes e.g. community bus schemes, enhanced public rights of way network etc	-
6. To alleviate deprivation and poverty	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Positive effects are possible where community benefits enhance or provide facilities or projects which contribute towards local regeneration initiatives	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Ensuring that the economic benefits of minerals extraction proposals are taken into account when determining planning applications could create new employment opportunities.	-
8. To reduce the causes of climate change	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Ensuring that the environmental benefits of minerals extraction are taken into account when determining planning applications could lead to positive effects where projects which help to absorb carbon such as woodland creation are considered.</p> <p>However, it may be useful to clarify in the supporting text that all environmental benefits of proposals will be taken into account and</p>	<p>ENV1: Clarify the supporting text to highlight that environmental benefits relating to the entire proposal will be taken into account and not just those relating to restoration and after-use.</p> <p>ENV2: Include renewable energy generation projects as a potential afteruse</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>not just those relating to restoration and after-use of a minerals site.</p> <p>In addition, it could be useful to highlight that afteruses can include renewable energy generation projects.</p>	
9. To respond and enable adaptation to the inevitable impacts of climate change	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Positive effects are possible where environmental benefits taken into account relate to opportunities to mitigate flood risk through the creation of flood storage areas for example.</p> <p>However, as with all potential environmental benefits, further assessment etc may be required to ensure that the most appropriate and environmentally beneficial option is selected for the site/area</p>	ENV3: Include text which requires applicants to demonstrate that the most environmentally beneficial option is proposed for the site/area.
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Positive effects are possible where environmental benefits considered would provide net gains to biodiversity, contribute to priority habitat creation, help deliver local nature recovery networks and create geodiversity features.</p> <p>Whilst it is likely that such benefits will largely relate to the restoration and after use of sites there may be opportunity for biodiversity or geodiversity benefits to be provided throughout other, earlier phases of minerals extraction. Therefore, it may be useful to clarify in the supporting text that all environmental benefits of proposals will be taken into account and not just those relating to restoration and after-use of a minerals site</p>	ENV2: As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Positive effects are possible where environmental benefits considered provide improvements to landscape character and help deliver the requirements of the County Durham Landscape Strategy.	-
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Positive effects are possible where environmental benefits considered include potential opportunities to reveal undiscovered archaeological features and improve understanding / access to these.	-
13. To protect and improve air, water and soil resources	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Positive effects are possible where environmental benefits considered include opportunities to address legacy issues of mine water pollution or improve areas of degraded land or agricultural land quality for example.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	0	0	0	-	-	-	No clear link between policy and SA objective. However, further clarification in relation to whether or how benefits are considered in relation to waste proposals could be included within the DPD.	ENV3: Further clarification in relation to whether or how benefits are considered in relation to waste proposals could be included within the DPD.
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Certain	Countywide	Direct and Potential for Permanent Effects	Ensuring that social, economic and environmental benefits of minerals extraction are taken into account when determining planning proposals and the inclusion of the policy within the DPD to this effect will encourage applicants to contribute towards addressing relevant sustainability issues within County Durham.	-

Table C5: Policy MW4 Noise

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	✓	✓	✓	Probable	Countywide	Direct and Potential for Permanent Effects	<p>The policy criterion sets out clear limits as to what is regarded as acceptable levels of noise, in line with Planning Practice Guidance (PPG), recognising that only small variations may be justified, and British Standard (BS) 4142. This will contribute to safeguarding communities by minimising adverse impact as a result of the noise created by minerals extraction and waste disposal operations.</p> <p>The supporting text mentions the need for a noise impact assessment. The policy could have a further positive effect by requiring operators to carry out a noise impact assessment as a pre-requisite in the policy criterion.</p>	<p>SOC1 Supporting texts states that a noise impact assessment is a requirement. Consider moving this supporting text as a requirement in the policy wording as follows, or similar to further safeguard social and environmental receptors:</p> <p>To protect the environment and the amenity of local communities and minimise future complaints, the Council will require operators to submit a noise impact assessment and noise action plan to demonstrate how they propose to minimise, mitigate and whenever possible remove noise emissions at source.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	Minor positive	Countywide	Indirect and potential for permanent effects	Mitigating noise associated with minerals and waste development could help to safeguard educational facilities from noise levels that could disturb and disrupt learning.	-
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Certain	Countywide	Direct and Potential for Permanent Effects	The policy contains criteria to safeguard health and well being through specifying acceptable noise level and operation hours which will serve to minimise noise pollution as a result of minerals and waste development. This will help to protect the health and wellbeing of employees working at minerals and waste sites and occupiers of noise sensitive properties. This could include homes and facilities providing healthcare.	SOC2: As for SOC1
5. To reduce the need to travel and promote use of sustainable transport options	✓/✗	✓/✗	✓/✗	Possible	Countywide	Indirect	The policy states the acceptable noise level limits permitted. This could have an indirect positive effect on reducing the need to travel if traffic movements from the site would need to be minimised to reduce noise levels from goods vehicles. However, the creation of noise attenuation barriers which may be required to mitigate noise levels could increase travel requirement associated with the initial establishment of minerals and waste operations.	This is a residual effect

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
6. To alleviate deprivation and poverty	✓	✓	✓	Possible	Countywide	Indirect Permanent	The alleviation of deprivation and poverty is not a direct aim of this policy, however, this policy has the potential to mitigate against deprivation and poverty related issues such as deprived areas being more likely to have higher noise pollution levels or be close to areas of high noise pollution levels. This policy seeks to mitigate and minimise the impact of noise related to minerals and waste development and keep noise within an acceptable level where possible.	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Possible	Countywide	Indirect Permanent	Where ancillary minerals related development and waste development is located on employment land such as industrial estates, ensuring that noise levels are acceptable could help to safeguard other businesses from disruption and possible impacts on productivity.	-
8. To reduce the causes of climate change	✓/x	✓/x	✓/x	Possible	Countywide	Indirect	The policy states the acceptable noise level limits permitted. This could have an indirect positive effect on climate change if the use of less noisy equipment to stay within the permitted noise levels creates lower emissions consequently. However, this policy could have an indirect negative effect on climate change through the creation of noise attenuation mounds such as baffle mounds which may require more vehicle movements and emissions for example to create. Whilst baffle mounds are not a requirement of the policy, they could be identified in the noise impact assessment or opted for by	This is a residual effect

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							the operators to minimise the impact of the noise.	
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	-	-	-	No clear link	-
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Certain	Countywide	Direct and Potential for Permanent Effects	<p>The policy will safeguard biodiversity and geodiversity of the area through its requirements regarding acceptable noise levels which will minimise and mitigate against noise pollution that can disturb and disrupt local wildlife.</p> <p>The noise impact assessment will be required to specify locations that may be affected which could include noise sensitive environmental receptors such as nesting birds for example.</p>	ENV1: As for SOC1
11. To protect and enhance the quality and character of landscape and townscape	✓/x	✓/x	✓/x	Possible	Countywide (predominantly rural areas)	Indirect	<p>Permitting proposals in accordance with the policy will help to protect the tranquillity and peace associated with rural landscape character and quality within County Durham and particular areas perceived to be 'wild' such as the North Pennines Area of Outstanding Natural Beauty (AONB).</p> <p>Measures to mitigate noise levels to acceptable levels where necessary, such as the creation of noise barriers may also</p>	ENV2: measures to minimise noise to acceptable levels should be subject to a landscape assessment as part of minerals and waste proposals to ensure that unacceptable adverse landscape and visual impacts can be avoided.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							help to play a part in screening and minimising the visual impact of minerals and waste development. However, such measures could also add to any adverse impacts of the developments and ancillary facilities to landscape character and quality. This would need to be considered as part of a landscape assessment of proposals.	
12. To protect and enhance cultural heritage & the historic environment	✓/✗	✓/✗	✓/✗	Possible	Countywide	Indirect	<p>Noise pollution can be harmful to heritage assets and therefore permitting proposals in accordance with it could help to protect heritage and especially any assets that may be specifically identified as noise sensitive through a noise assessment.</p> <p>Measures to mitigate noise levels to acceptable levels where necessary, such as the creation of noise barriers may also help to play a part in screening and minimising the impact that minerals and waste development may have on the setting of heritage assets. However, such measures could also directly and indirectly harm heritage</p>	ENV3: measures to minimise noise to acceptable levels should be subject to a heritage impact assessment as part of minerals and waste proposals.
13. To protect and improve air, water and soil resources	✓/✗	✓	✓	Possible	Countywide	Indirect Temporary	The policy criteria require operators to work within acceptable noise levels where possible which could have a positive effect on air, water and soil resources if lower noise levels also creates lower emissions. There is potential for indirect negative effect on air, water and soil resources in the short-term if noise reduction measures such as the erection of baffle mounds create higher emissions and disrupt soil.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	0	0	0	-	-	-	No clear link between policy and SA objective.	-
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Probable	Countywide	Direct Permanent	Whilst it is acknowledged that noise is a complex and technical issue and that some noise is inevitable this policy sets out PPG and BS 4142 aligned acceptable noise limits according to the time of operation. This will contribute to sustainability of mineral extraction by reducing the adverse impact of noise pollution on communities and the environment.	-

Table C6: Policy MW5 Air Quality and Dust

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	✓	✓	✓	Possible	Countywide	Indirect and Potential for Permanent Effects	The policy will only permit minerals and waste development that will not have unacceptable adverse impacts on the environment, local amenity or human health as a result of air quality pollutants or dust. This may have positive indirect effects on communities as traffic levels associated with proposals may be minimised in order to meet air quality objectives.	-
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	No clear link	-
4. To reduce health inequalities	✓✓	✓✓	✓✓	Certain	Countywide	Direct and Potential for	Ensuring that air pollutants and dust emissions from minerals and waste proposals are either avoided or limited to	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
and promote healthy lifestyles						Permanent Effects	acceptable levels from minerals and waste development is directly compatible with health objectives. Extending the scope of the policy to include all types of air pollutants ensures that very positive effects can be predicted against this SA objective. Sensitive receptors such as residents near to minerals and waste developments and proposals within Air Quality Management Areas will receive particular attention through air quality assessments. The policy will also benefit the health of employees working in minerals and waste operations within the county.	
5. To reduce the need to travel and promote use of sustainable transport options	✓	✓	✓	Probable	Countywide	Indirect	As for SA objective 2, ensuring that proposals will be accepted in accordance with the policy may require the reduction of traffic and travel activity associated with proposals. The outcome of air quality assessments may provide solutions to operators on travel avoidance	-
6. To alleviate deprivation and poverty	✓	✓	✓	Possible	Countywide	Indirect Permanent	The alleviation of deprivation and poverty is not a direct aim of this policy, however, this policy has the potential to mitigate against deprivation and poverty related issues such as deprived areas being more likely to have higher pollution levels or be close to areas of high pollution levels. For example, some wards falling within Durham City's Air Quality Management Area are within the top 20-30% of national deprivation. This policy seeks to mitigate and minimise the impact of air and dust pollution.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Possible	Countywide	Indirect Permanent	Research undertaken by the Confederation of British Industry (CBI) in 2020 found that work absences related to poor air are costing Britain about £600m annually. ¹ Therefore the policy which aims to avoid and minimise the contribution of County Durham's minerals and waste development to air pollution could help to minimise work absences and lessen days an individual attends work ill.	-
8. To reduce the causes of climate change	✓	✓	✓	Probable	Countywide	Direct	Extending the scope of the policy to all air pollutants enables positive effects to be predicted against this objective as many of the air pollutants will also be greenhouses gases that contribute towards climate change. Limiting these from minerals and waste development will therefore help to reduce the causes of climate change. Mitigation measures such as the use of trees and other green infrastructure used to act as barrier between sources of air pollution and receptors will also help to absorb greenhouse gases. Reducing travel requirements and use of low or zero emissions vehicles and plant will also contribute positively to both reducing air pollution and greenhouse gas emissions. Whilst some mitigation measures such as filtration and ventilation may increase energy requirements, positive effects are predicted overall.	ENV1: If mitigation measures such as the use of filtration and ventilation systems increase energy requirements, operators should be encouraged to utilise low carbon and renewable energy sources to power these. This will also be of further benefit to air quality.

¹ CBI Economics (2020) Breathing life into the UK economy: Qualifying the economic benefits of cleaner air (Commissioned by Clean Air Fund)

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	-	-	-	No clear link	-
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Certain	Countywide	Direct and Potential for Permanent Effects	The policy wording will safeguard wildlife and habitats from air pollution and dust created from minerals and waste operations. This will benefit all habitats but particularly those sensitive to nitrogen deposition and dust such as Special Areas of Conservation within upper Teesdale and Weardale. Some of the mitigation measures to minimise air pollution to acceptable levels can also benefit biodiversity and potentially contribute towards local nature recovery e.g. the creation of green infrastructure and tree planting. However, acceptability will need to be assessed as part of the planning process as trees planted in the wrong place for example, can also harm biodiversity.	ENV2: The appropriateness of any air quality and dust mitigation measures to nature conservation will need to be assessed as part of the planning process.
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Possible	Countywide	Indirect and temporary	The policy will safeguard and protect the quality and character of landscape and townscape from dust emissions that could otherwise pollute and cover the area.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Possible	Countywide	Indirect and permanent	Air pollution and dust can affect the physical fabric of heritage assets. Therefore, the policy will contribute towards protecting the historic environment.	-
13. To protect and improve air, water and soil resources	✓/x	✓/x	✓/x	Possible	Countywide	Direct and potential for permanent effects	Whilst this policy is directly compatible with protecting air quality, mitigation measures such as the use of sprays and mobile water bowsers can increase water usage and could cause subsequent soil and water contamination. Therefore, it would be for the operators to demonstrate that dust and air quality emission reduction measures do not have other unintended negative impacts.	ENV3: The appropriateness of any air quality and dust mitigation measures to soil and water resources will need to be assessed as part of the planning process.
14. To reduce waste and encourage the sustainable and efficient use of materials	0	0	0	-	-	-	No clear link between policy and SA objective.	-
15. To improve the sustainability	✓	✓	✓	Probable	Countywide	Direct Permanent	This policy will contribute to the sustainability of mineral extraction by reducing the adverse impacts of air	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
of minerals extraction and use and reduce adverse impacts on communities and the environment							pollution to communities and the environment.	

Table C7: Policy MW6 Blasting

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	Probable	Local	Indirect	Whilst the aim of the policy is not to provide everybody with the opportunity to live in a decent and affordable home, the policy could have a minor positive effect on safeguarding the quality of existing homes by minimising the vibrations from blasting that could have an adverse impact on built environments.	The supporting text includes standards for low frequency vibration limits and states that, where applicable, applications should be accompanied by a blasting and vibration monitoring scheme. The policy would be made more robust if this was included in the policy wording.
2. To promote strong secure communities	✓	✓	✓	Probable	Local	Direct	Policy wording states that operators must demonstrate that, where blasting is required, that the ground vibration resulting from blasting will not have an unacceptable adverse impact on buildings and structures, and people within buildings and will not exceed peak particle velocities of 6mm/second when measured at sensitive properties. This will contribute to safeguarding communities by minimising adverse impact on communities as a result of blasting through by minerals extraction operations.	SOC 2 same as SOC1
3. To improve education, training and life-long learning, and maintain a healthy	0	0	0	-	-	-	No clear link	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
labour market								
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Probable	Local	Direct	<p>Policy wording states that operators must demonstrate that blasting will not have an unacceptable adverse impact and limits peak particle velocity to 6mm, in line with the British Standards Institution.</p> <p>This will safeguard health and wellbeing through minimising the nuisance and harm from blasting to a level that is not deemed unacceptable. This includes vibrations, release of particles into the air and air over-pressure, which in extreme circumstances can be fatal.</p>	SOC 4 same as SOC1
5. To reduce the need to travel and promote use of sustainable transport options	0	0	0	-	-	-	No clear link	-
6. To alleviate deprivation and poverty	✓	✓	✓	Possible	Local	Indirect	The alleviation of deprivation and poverty is not a direct aim of this policy; however, this policy has the potential to mitigate against deprivation and poverty related issues such as deprived areas being more likely to be close such sites.	SOC 6 same as SOC1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							This policy seeks to mitigate and minimise the impact of blasting related operations that is not deemed unacceptable.	
7. To develop a sustainable and diverse economy with high levels of employment	0	0	0	-	-	--	No clear link	-
8. To reduce the causes of climate change	0	0	0	-	-	-	No clear link	-
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	-	-	-	No clear link	-
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Probable	Local	Temporary	The policy wording will safeguard wildlife and habitats from blasting related impacts It requires operators to demonstrate that impact from blasting will not be unacceptable and limits peak particle velocity to 6mm, in line with the British Standards Institution. This will minimise the impact that vibrations, noise, air over-pressure and particles in the air will have on wildlife and habitats.	ENV 10 same as SOC1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Probable	Local	Temporary	Policy wording requires operators to demonstrate that adverse impact on buildings, from blasting, will not be unacceptable and limits peak particle velocity to 6mm, in line with the British Standards Institution. This will safeguard the townscape from being altered as a result of adverse impacts vibrations and particle velocity.	ENV 11 same as SOC1
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Probable	Local	Temporary	This policy will safeguard the historic environment. Policy wording requires operators to demonstrate that adverse impact on buildings, from blasting, will not be unacceptable and limits peak particle velocity to 6mm, in line with the British Standards Institution.	ENV 12 same as SOC1
13. To protect and improve air, water and soil resources	✓	✓	✓	Probable	Local	Temporary	This policy will protect air and soil resources. Policy wording requires operators to demonstrate that adverse impact on buildings, from blasting, will not be unacceptable and limits peak particle velocity to 6mm, in line with the British Standards Institution. This will minimise the impact blasting related vibrations have on the ground and soil and will limit the peak particle velocity as a result of blasting that is released into the air.	ENV 13 same as SOC1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Probable	Local	Temporary	The policy wording requires operators to demonstrate that adverse impact on buildings and people in buildings will not be unacceptable and limits the peak particle velocity to 6mm, in line with the British institution Standards. This will encourage sustainable and efficient extraction through minimising the impact on surrounding communities, buildings and environments.	ENV 14 same as SOC1
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Probable	Local	Temporary	The policy wording requires operators to demonstrate that adverse impact on buildings and people in buildings will not be unacceptable and limits the peak particle velocity to 6mm, in line with the British Institution Standards. This will allow sustainable extraction through minimising the impact on surrounding communities, buildings and environments.	ENV 15 same as SOC1

Table C8: Policy MW7 Traffic and Transport

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link The transportation of minerals and waste does not impact on the provision of opportunities to live in a decent and affordable home. Traffic levels can affect the quality of living environments and the desirability of housing across the County which is considered against other SA objectives.	-
2. To promote strong secure communities	✓/x	✓/x	✓/x	Possible	Countywide	Temporary but potentially long lasting – linked to the duration of operations at minerals and waste sites.	<p>Policy criterion relating to ensuring that traffic from minerals and waste proposals do not have an unacceptable adverse impact on highways safety and that the amenity impact of traffic on local communities will be minimised through a consideration of number of lorry movements, operating hours and routing will contribute towards the safety and safeguarding of communities. Ensuring safe and suitable access to the site will also contribute positively to this SA objective.</p> <p>However, the change in emphasis of the policy from requiring transportation of minerals and waste to be by sustainable modes (unless demonstrated to be not possible or unviable) to considering their use where practical and economic weakens this element and potential opportunities to reduce vehicle movements linked to proposals in the future.</p>	<p>SOC1 Amend wording from:</p> <p>Minerals and waste proposals should always consider and seek to maximise the use of sustainable forms of transport such as by rail, and/or by low or zero emission vehicles, where practical and economic.</p> <p>To</p> <p>Minerals and waste proposals should utilise and maximise sustainable modes of transport such as by rail and/or by low or zero emission vehicles, unless it can be demonstrated that this is unfeasible, unviable or could significantly increase total travel distances.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Furthermore, whilst the policy intends to ensure that the most suitable routes are identified as part of any planning permission, minor rural roads are avoided and that the defined lorry route network is utilised as soon as practicable (includes all roads classified as an A Road or above), it may be useful to stipulate that the use of B roads will generally be preferred in order to access the lorry route network, helping to reduce the use of smaller, unsuitable roads further.	SOC2: Include The following wording: The Council will therefore seek to ensure that the most suitable route is identified as part of any planning permission and will seek to ensure that vehicles transporting minerals and waste, avoid or minimise minor rural roads and utilise as soon as practicable the defined lorry route network of roads within the County. Where sites are remote from the lorry route network, the use of B roads for the greater part of the journey to the network will generally be preferred.
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	No clear link	-
4. To reduce health inequalities and promote healthy lifestyles	✓/x	✓/x	✓/x	Possible	Countywide	Temporary but potentially long lasting – linked to the duration of	The policy encourages the use of walking and cycling to sites where practicable, aims to protect recreational uses of rural roads by minimising their use by HGV's and will seek to impose planning conditions where necessary to minimise the amenity impact of traffic on local communities. This could include conditions that minimise levels of	SOC3: Consider including the following criterion. In determining planning applications, proposals will be permitted where it can be demonstrated that:

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
						operations at minerals and waste sites.	<p>noise and pollution to receiving communities. However, the policy could usefully contain a further 'catch all' criterion which ensures that proposals will only be permitted where it can be demonstrated that the traffic impacts do not have unacceptable adverse impacts either individually or cumulatively on the environment, local amenity or human health. The addition of this criterion would also help to take account of any impacts to health associated with increasing HGV movements in Air Quality Management Areas.</p> <p>In addition, the change in emphasis of the policy from requiring transportation of minerals and waste to be by sustainable modes (unless demonstrated to be not possible or unviable) to considering their use where practical and economic weakens this element and potential opportunities to reduce HGV movements and associated impacts on health and wellbeing linked to proposals in the future.</p>	<p>c) The impacts of traffic and transport do not have unacceptable adverse impacts either individually or cumulatively on the environment, local amenity or health.</p> <p>SOC4: As for SOC1</p>
5. To reduce the need to travel and promote use of sustainable transport options	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct, Temporary	<p>The policy encourages minerals and waste proposals to consider the use of sustainable modes of transport, including the use of existing and new rail handling facilities. However, the change in emphasis from requiring use of sustainable modes (unless it can be demonstrated not to be possible or unviable) to only considering and seeking their use where practical and economic lowers the test applicants need to meet in this regard and with it, potential opportunities to reduce vehicle movements linked to</p>	<p>SOC5 As for SOC1</p> <p>SOC6: Amend wording from 'Where the movement of minerals by rail is feasible as part of new or extended minerals workings, applicants will be required to consider such movements from both existing and new rail handling facilities'</p> <p>To:</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							proposals in the future. Amendments to the policy wording are suggested.	'Where the movement of minerals by rail is feasible, viable and will not significantly increase total travel distances as part of new or extended minerals workings, applicants will be required to utilise existing and new rail handling facilities for the transportation of minerals and waste '
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link	-
7. To develop a sustainable and diverse economy with high levels of employment	✓/x	✓/x	✓/x	Possible	Countywide	Direct, Temporary	The policy seeks to achieve a balance of encouraging the use of sustainable transport without affecting the viability of minerals and waste businesses in the county. Encouraging the use of sustainable modes of transport, including rail can help to minimise congestion that can adversely impact on the productivity of business and can support the expansion and contribution of rail freight to County Durham's economy. Where road transportation is required, ensuring routes minimise the use of rural roads will also help to support the rural economy and their use for recreational purposes. However, it is considered that the policy could be strengthened further in relation to the use of sustainable modes of transport and their contribution to the economy, whilst still taking business viability into account.	ECON1: As for SOC1 and SOC2

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
8. To reduce the causes of climate change	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct, Permanent	<p>The policy seeks to minimise pollution and greenhouse gases caused by minerals and waste proposals by encouraging sustainable modes of transport (including rail), low/zero emissions vehicles and avoiding the creation of congestion.</p> <p>However, as for SA objective 5, the change in emphasis from requiring to considering the use of sustainable modes of transport lowers the test applicants are expected to meet and does not align as well with commitments to be a carbon neutral county by 2050. The suggested change to wording takes into account that the use of sustainable modes of transport should not significantly increase total travel distances which could be counter-productive to the aim of minimising greenhouse gas emissions.</p> <p>As part of this policy, the Lorry Route Network Map shows the road network that drivers of HGV's are expected to use to access destinations within the County i.e. A roads. However, as sites can be remote from these roads it may be useful to stipulate that a greater use of B roads to access the network will be preferred. The use of such 'faster' roads as opposed to smaller, rural roads should contribute to fuel efficiency and reduced emissions. The Fuel Efficient Truck Drivers' Handbook advises that the more you have to change gear, brake or accelerate the more fuel will be used. Slow, arduous routes</p>	ENV1: As for SOC1, SOC2 and SOC6

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							will drag down the fuel performance of even the best vehicle. ²	
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	-	-	-	No clear link	-
10. To protect and enhance biodiversity and geodiversity	0	0	0	Minor positive	Countywide	Indirect	Encouraging the use of sustainable modes of transport, low/zero emission vehicles and routing away from rural roads as much as possible can help to minimise levels of traffic related noise and disturbance to biodiversity along with road fatalities. The policy could however be strengthened to minimise traffic within 200 metres of Special Areas of Conservation that are sensitive to nitrogen deposition. This could be achieved by including the following wording 'In determining planning applications, proposals will be permitted where it can be demonstrated that: c) The impacts of traffic and transport do not have unacceptable adverse impacts either individually or cumulatively on the environment, local amenity or health.	ENV2: As for SOC3

² [Department for Transport - The Fuel Efficient Truck Drivers Handbook](#)

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
11. To protect and enhance the quality and character of landscape and townscape	0	0	0	Minor positive	Countywide	Indirect	Avoiding congestion as part of the requirements of criterion b and minimising the use of rural roads can contribute towards protecting the enjoyment of and experience within urban and rural environments.	-
12. To protect and enhance cultural heritage & the historic environment	0	0	0	Minor positive	Countywide	Indirect	Avoiding congestion as part of the requirements of criterion b can contribute towards protecting the character of Conservation Areas	-
13. To protect and improve air, water and soil resources	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct, Temporary	<p>The policy includes requirements to ensure that low/zero emissions modes of transport are encouraged, there will be no unacceptable adverse impacts upon the road networks-including congestion and obligations regarding transportation of materials, traffic operation hours, transference of mud and dirt to the public highway.</p> <p>These criteria all contribute to minimising impacts on air, water, and soil resources. Managing traffic routes and minimising any additional traffic and congestion and seeking to reduce emissions through the use of low or zero emissions modes of transport related to</p>	ENV3: As for SOC1, SOC3 and SOC6

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>the development will protect the air and water and soil at a local and county wide level.</p> <p>The transference of mud will protect soil and water resources.</p> <p>However, as stated against other SA objectives, the policy could be strengthened in terms of its requirements towards the use of sustainable transport modes and further account could be taken of the impacts of HGV's in Air Quality Management Areas.</p>	
14. To reduce waste and encourage the sustainable and efficient use of materials	✓/x	✓/x	✓/x	Possible	Countywide	Direct	Encouraging the use of sustainable modes of transport and ensuring that routes make as much use of the strategic road network as possible will help to reduce fossil fuel use and improve fuel efficiency. However, as stated against other SA objectives, the policy could be strengthened in regard to the policy tests on use of sustainable transport modes and it may be useful to clarify the position in terms of use of B roads over smaller rural roads.	ENV4: As for SOC1, SOC3 and SOC6
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities	✓/x	✓/x	✓/x	Possible	Countywide	Direct	The policy aims to reduce minerals and waste associated traffic through encouraging use of sustainable modes along with the impact of traffic on communities and the environment through the consideration of lorry numbers, routing, capacity of road networks etc. However, the change in emphasis from requiring to considering the use of sustainable modes of transport lowers the test applicants are expected to meet and	ENV5: As for all mitigation measures above.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
and the environment							potential opportunities for modal shift and associated sustainability benefits. Furthermore, it may be possible to minimise the use of smaller, unsuitable rural roads further through clarifying expectations in relation to the use of B roads for journeys to the lorry route network. The policy would also benefit from the inclusion of criterion that considers the broader impact of traffic and transport on health and the environment as this is currently missing from the considerations when determining a planning application which relate only to safe and suitable access to sites and impact on the highways network.	

Table C9: Policy MW8 Mineral Rail Handling Facilities

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	Possible	Local	Indirect Permanent	Minor positive effect. Whilst there is no clear direct link between this policy and decent affordable homes. There is potential for this policy to safeguard decent homes by seeking to minimise impacts on local amenities such as local roads near housing.	-
2. To promote strong secure communities	✓	✓	✓	Probable	Local	Indirect	Potential for a positive effect as the policy require impact on local amenity in relation to transport and traffic to be acceptable. Although it should be noted that what is considered as acceptable is reliant on subjective judgement.	SOC 2 Include, criteria to outline what is considered as unacceptable adverse impacts so this aspect of the policy is not ambiguous.
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	No clear link	-
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Probable	local	Direct Permanent	This policy provides the opportunity to safeguard health and wellbeing through providing the opportunity to transfer movement of minerals to rail rather than road where possible, which will reduce carbon emissions.	SOC 4, same as SOC 2.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>The policy specifies that this transfer should have an acceptable impact on traffic, local amenity, and other environmental effects, which will enable healthy lifestyles.</p> <p>Although it should be noted that what is considered as acceptable is reliant on subjective judgement.</p>	
5. To reduce the need to travel and promote use of sustainable transport options	0	0	✓	Possible	Local	Direct Permanent	<p>Minor potential positive effect and possible positive effect as facilities, networks, and technological advancements in transport (including rail freight) are developed</p> <p>The policy provides potential to reduce the need to transport minerals and waste via road where possible.</p>	SOC 5, same as SOC 2.
6. To alleviate deprivation and poverty	0	0	0	Possible	Local	Indirect/Residual Permanent	<p>Whilst there is not a direct link there is the potential minor positive effect.</p> <p>The alleviation of deprivation and poverty is not a direct aim of this policy, however, this policy has the potential to mitigate against deprivation and poverty related issues such as deprived areas being more likely have high pollution levels or be close to areas of high pollution levels. The policy seeks to minimise impacts on local amenities such as local roads near housing and other environmental effects</p>	-
7. To develop a sustainable and diverse economy	0	0	0	-	-	-	No clear link	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
with high levels of employment								
8. To reduce the causes of climate change	X	✓	✓	Possible	Countywide	Direct Permanent	Whilst this policy may have a minor negative effect on climate change via the building of the rail facilities it will have a positive effect in the long-term road based transport is a cause of climate change.	ENV 8, same as SOC 2.
9. To respond and enable adaptation to the inevitable impacts of climate change	0	✓	✓	Possible	Countywide	Direct Permanent	This policy safeguards and enables adaptation to the impacts of climate change through the promotion of sustainable transport and encouragement of use of low/zero emissions vehicles. This includes allowing the establishment of rail transportation of minerals where impact is acceptable. Although it should be noted that what is considered as acceptable is down to subjective judgement.	ENV 9, same as SOC 2.
10. To protect and enhance biodiversity and geodiversity	X	✓	✓	Possible	Local	Direct permanent	Permitting the establishment of facilities to enable the transfer of minerals by rail where the impact is acceptable may have a negative impact in the short term as these facilities are incepted however they will have a positive impact in enhancing biodiversity and geodiversity by moving minerals related traffic off the road and onto rail based transportation that is low/zero emissions.	ENV 10, same as SOC 2.
11. To protect and enhance the	✓/X	✓/X	✓/X	Uncertain	Local	Direct Permanent	This policy could have a positive or negative effect depending on how the policy is implemented.	ENV 11, same as SOC 2.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
quality and character of landscape and townscape							<p>The policy will enable the transition of minerals transportation of road and onto rail. This will have a positive effect by reducing traffic and congestion. The policy supporting text also states that there should be consideration to local amenity (including housing) and environmental effects.</p> <p>This policy could have a negative effect on the quality and location of the landscape where these facilities are built. Although the supporting text does state that the location of any new rail handling facilities will need to be carefully assessed so that any unacceptable adverse impacts are minimised, there is still the possibility of a negative effect as a result.</p>	
12. To protect and enhance cultural heritage & the historic environment	0	0	0	-	-	-	No clear link	-
13. To protect and improve air, water and soil resources	x	✓	✓	Probable	Countywide	Direct Permanent	<p>The policy allows the establishment of facilities that enable a move towards lower emissions via a move to rail transportation, provided the impact of the development is acceptable upon the local amenity and other environmental issues. There may be a negative effect whilst the facilities are being built, but once</p>	ENV 13, same as SOC 2.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							established the effect of the rail facilities will have a positive effect.	
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Probable	Local	Direct Permanent	The overarching emphasis on sustainable modes of transport and encouragement through the policy to use low/zero emissions transport via rail where practicable, aligns with encouraging sustainable and efficient use of materials.	ENV 14, same as SOC 2.
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✗	✓	✓	Certain	Countywide	Direct Permanent	Whilst it is acknowledged that building new facilities will have a negative effect on the environment and some adverse impact on communities, once the facilities are established the process of mineral extraction will be more sustainable. The policy supporting text states that the ideal location of rail loading will be at point of extraction, which will improve the sustainability of minerals extraction. This reduction of road transportation will also minimise the adverse impact on communities, including roadside communities.	ENV 15, same as SOC 2.

Table C10: Policy MW9 Borrow Pits

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link between policy and SA objective	-
2. To promote strong secure communities	✓/x	✓/x	✓/x	Possible	Countywide	Direct & Temporary	<p>Criterion a and d relating to the time limited nature of borrow pits and restoration at the earliest opportunity will help to minimise the duration of any potential impact to communities associated with their working. However, it is considered that the wording of criteria a regarding the 'life of the project' could be made more specific to the construction phase of the project. Also, it may be useful if the policy attempts to qualify the type of construction project a borrow pit proposal would be considered for.</p> <p>Criterion b considers any potential adverse impacts to communities (local amenity) in relation to the supply of minerals from existing sources.</p> <p>Criterion c and d will also ensure that the benefits of using borrow pits in respect of lowering the levels of HGV movements on local roads compared to importing materials to site and disposing of excavated materials are achieved.</p> <p>However, whilst impacts are likely to be of a temporary nature, as written the policy does</p>	<p>SOC1: Consider amending policy and criterion a as follows or similar – Proposals for borrow pits must be operationally related to a specific, major construction project and will be permitted where all of the following criteria are met:</p> <p>a) They are time limited to the life construction phase of the project and material is to be used only for the specified project</p> <p>SOC2: Include a new criterion: It can be demonstrated that the working and restoration of the borrow pit will have no unacceptable adverse impact on the environment, human health, or the amenity of local communities.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							not ensure that unacceptable adverse impacts to communities will be avoided through working and restoring the borrow pit e.g. via noise, dust, vibration etc.	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	No clear link between policy and SA objective	-
4. To reduce health inequalities and promote healthy lifestyles	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct & Temporary	As for SA objective 2, there are elements of the policy which will contribute positively towards minimising potential impact and the duration of such on communities and health and wellbeing. However, there is a gap in relation to considering the impact of working and restoring borrow pits on health and wellbeing.	SOC3: Please see SOC2
5. To reduce the need to travel and promote use of sustainable transport options	✓	✓	✓	Probable	Countywide	Direct & Temporary	Criterion c and d will ensure that the benefits of using borrow pits in respect of reducing distances associated with the importation of minerals and disposal of excavated materials is achieved. However, the requirement to do so 'without the use of the public highway system' may prevent proposals which are otherwise well-related to the construction project and can be delivered without any adverse impacts to highways safety or communities. It is suggested that this wording is amended to introduce greater flexibility to the policy and potential travel reduction.	ENV1: Suggest amending criterion c and d as follows or similar: ...without the use of the public highway system; largely via site haul routes within the construction boundary of the project. ENV2: Clarify what is meant by 'existing quarries in the area.'

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Criteria b which requires consideration to be first given to supply from existing quarries in the area suggests that nearby, local quarries as opposed to quarries at a further distance, elsewhere in the country will be the first consideration when determining the benefits of borrow pit proposals. However, it would be useful if 'the area' is clarified further e.g. County Durham or the wider North East?	
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link between policy and SA objective	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Probable	Countywide and possibly the wider NE region	Direct & Temporary	<p>Criterion a regarding the time-limited nature of borrow pits and criterion b which requires consideration to be first given to supply from existing quarries in the area will ensure that borrow pit proposals do not undermine existing minerals business. As stated against SA objective 5 it may be useful if the policy further clarifies whether it is quarries within County Durham or within the wider North East area which should be considered prior to a borrow pit.</p> <p>In order to highlight the importance of considering existing mineral business as the first step, it is also recommended that criterion b becomes the first criterion which is considered by the policy.</p>	<p>ECON1: Please see ENV2</p> <p>ECON2: Reorder the policy so that criterion b is the first consideration.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Where borrow pits are approved in accordance with the policy, they can help to ensure that infrastructure projects which benefit the economy can be delivered with reduced risk of delay and costs arising from double handling, importation of materials and landfill disposal.	
8. To reduce the causes of climate change	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct & Permanent	<p>The criteria within the policy which help to reduce the distances that minerals and materials are transported also contribute toward reducing greenhouse gas emissions. However, as mentioned against SA objective 5, potentially greater benefits could be derived by improving the flexibility of the policy and clarifying criteria b in relation to existing quarries.</p> <p>Negative impacts could occur if creating borrow pits remove or damage important carbon sinks such as peat. The environmental acceptability of borrow pits should be considered in this regard.</p>	<p>ENV3: Please see ENV1 and ENV2</p> <p>ENV4: Include a new criterion: It can be demonstrated that the working and restoration of the borrow pit will have no unacceptable adverse impact on the environment, human health, or the amenity of local communities.</p>
9. To respond and enable adaptation to the inevitable impacts of climate change	✓	✓	✓	Possible	Countywide	Direct & Permanent	In some circumstances, the restoration of borrow pits may contribute towards addressing the impact of climate change by taking opportunities to mitigate pre-existing and potential future flood risk. This aspect could be usefully recognised within the DPD's restoration and aftercare policy.	ENV5: Recognise opportunities to adapt to the impacts of climate change within other policies of the DPD as relevant, including any restoration and aftercare policies.
10. To protect and enhance biodiversity	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct & potential for Permanent effects	Criteria b recognises that there may be circumstances where a borrow pit may be preferable to obtaining supply from an existing quarry. This includes environmental concerns which may relate to the ability to	<p>ENV6: Please see ENV4</p> <p>ENV7: Recognise the importance of achieving biodiversity net gain (BNG)</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
and geodiversity							protect and enhance biodiversity. However, the policy does not include criteria to assess the environmental acceptability of working and restoring the borrow pit, including to biodiversity. Biodiversity net gains should also be sought as part of a high-quality restoration and aftercare scheme.	within other policies of the DPD as relevant, including any restoration and aftercare policies
11. To protect and enhance the quality and character of landscape and townscape	✓/✗	✓/✗	?	Possible	Countywide	Direct & Temporary	Criteria b recognises that there may be circumstances where a borrow pit may be preferable to obtaining supply from an existing quarry. This includes environmental concerns which may relate to landscape and visual impacts. Criteria d also requires proposals to demonstrate that they can be restored to an appropriate landform which should avoid long term, adverse landscape and visual impacts. However, there is uncertainty as to whether the policy is too restrictive in relation to the use of imported material for restoration proposals? Whilst it would be desirable to avoid imported materials, will it always be possible to achieve a high-quality restoration scheme without importing some? Long term effects are therefore, currently assessed as uncertain. In addition, the policy does not include criteria to determine whether the working of the borrow pit in respect of its design, external appearance, methods by which they are worked etc will be acceptable in respect of landscape and visual impact.	ENV8: Consider whether the policy needs to be more flexible regarding the import of materials to achieve high quality restoration in certain circumstances? If it does, the policy should still strive to keep imported materials at a bare minimum. ENV9: Please see ENV4

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
12. To protect and enhance cultural heritage & the historic environment	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct & potential for Permanent effects	Criteria b recognises that there may be circumstances where a borrow pit may be preferable to obtaining supply from an existing quarry. This includes environmental concerns which may relate to the protection of the historic environment and heritage assets. However, the policy does not include criteria to determine whether the working of the borrow pit will be acceptable in respect of impacts to heritage such as undiscovered archaeological remains for example.	ENV10: Please see ENV4
13. To protect and improve air, water and soil resources	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct & potential for Permanent effects	Criteria b recognises that there may be circumstances where a borrow pit may be preferable to obtaining supply from an existing quarry. This includes environmental concerns which may relate to the protection of air, water and soil resources However, the policy does not include criteria to determine whether the working of the borrow pit will be acceptable in respect of impact to and management of air, water and soil resources. In respect of soil resources, it is however assumed that some careful management will be required to ensure that pits can be restored without (or largely without, please see comments against SA objective 11) the use of imported material as required by criterion d. It is noted that the supporting text to County Durham Plan Policy 14 (Best and Most Versatile Agricultural Land and Soil Resources) states that further guidance relating to mineral extraction and soil resources will be provided within the M&WDPD.	ENV11: Please see ENV4 ENV12: Recognise the importance of good soil management and the need to protect the best and most versatile agricultural land within other policies of the DPD as relevant, including any restoration and aftercare policies.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Possible	Countywide	Direct & Temporary	<p>Criterion b requires borrow pit proposals to demonstrate that their need for aggregates cannot be met by secondary and recycled materials which will help to conserve primary, natural resources. However, in order to strengthen the emphasis it is recommended that the use of suitable, secondary or recycled materials are cited prior to the supply of primary aggregates from existing quarries in criterion b. (This criterion should also become criterion a. Please see ECON2)</p> <p>The use of excavated materials in restoration as required by criteria d will also minimise the need for other methods of disposal.</p>	<p>ENV11: Reword criterion b (a) to:</p> <p>There is a need for a particular type of aggregate which cannot reasonably be met by the use of suitable secondary or recycled materials or supplied from existing quarries in the area.</p> <p>(‘in the area’ - County Durham/North East?)</p>
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓/x	✓/x	✓/x	Possible	Countywide	Direct & potential for Permanent effects	<p>Overall, the policy aims to maximise some of the benefits of borrow pits where needs cannot be met by the use of secondary/recycled materials or existing quarries without detrimental impacts in the first instance. However, further clarity is required in relation to determining the social and environmental acceptability of working and restoring borrow pits.</p> <p>Furthermore, the policy may be too restrictive in places which could be to the detriment of opportunities to reduce travel and achieve high quality restoration schemes. The emphasis on the use of recycled and secondary materials prior to primary resources could also be emphasised.</p>	<p>Please see all mitigation measures as listed above.</p>

Table C11: Policy MW10 Ancillary Minerals Related Infrastructure

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	✓	✓	✓	Probable	Countywide	Direct	<p>The co-location of ancillary minerals related infrastructure at active mineral sites will help to minimise the impacts of mineral related traffic to communities. The location of permanent ancillary related infrastructure on employment land should also contribute towards protecting communities as industrial estates etc are usually located in areas which would not significantly affect residential amenity. The policy also required that the proposed ancillary minerals related infrastructure would not have an unacceptable adverse impact on the environment, human health or the amenity of local communities.</p> <p>However, the policy could require the need for a permanent facility to be demonstrated as transportation to employment sites could increase trips and the impacts of minerals traffic on communities compared to the use of a temporary ancillary facility at an active mineral site.</p>	<p>SOC1: consider amending the policy as follows:</p> <p>From: 2) Proposals for permanent ancillary minerals related infrastructure will be permitted</p> <p>To: 2) Where it can be demonstrated that permanent ancillary minerals infrastructure is required, this will be permitted:</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	No clear link	-
4. To reduce health inequalities and promote healthy lifestyles	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct	<p>The co-location of ancillary minerals related infrastructure at active mineral sites will help to minimise minerals related traffic and emissions. However, they could also increase localised, individual and cumulative levels of noise, dust and odour etc associated with working the mineral site. The policy will only permit proposals that will not have an unacceptable adverse impact on human health or the amenity of local communities, however in some circumstances, health and wellbeing may be better protected if the necessary ancillary infrastructure is available for use on a nearby mineral site. Whilst the potential benefits of ancillary minerals related development located at one site being able to serve other nearby minerals sites is recognised within the supporting text, this could be included as policy criterion.</p> <p>In addition, whilst the potential health and wellbeing impacts of permanent ancillary development on employment sites will be taken into account, it is considered that the need for a permanent facility should be</p>	<p>SOC2: Consider adding the following criterion:</p> <p>1) Proposals for ancillary minerals related infrastructure will be permitted at active mineral sites where it can be demonstrated that:</p> <p style="padding-left: 40px;">a) there are no viable and more sustainable opportunities to utilise existing infrastructure at a nearby mineral or employment site</p> <p>Viability would, amongst other factors take account of the working duration of the proposal and that of the site which hosts the infrastructure.</p> <p>In order to recognise further that there may be viable, sustainable opportunities to utilise existing infrastructure,</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							demonstrated as the duration of the associated impacts of the development will be longer.	<p>the flexibility of the supporting text could also be improved as follows:</p> <p>Accordingly, any planning permission for ancillary mineral related development will also be time limited to expire on the cessation of mineral working from the associated site. Longer periods that do not significantly delay restoration may be agreed where the infrastructure serves other active mineral sites.</p> <p>This is considered to better reflect criterion c of the policy which currently states that 'The duration of the proposed ancillary minerals related infrastructure is linked to the life of the mineral site and will be removed and restored as soon as extraction of minerals from the site has permanently ceased or any longer period as agreed.'</p> <p>SOC3: As for SOC1</p>
5. To reduce the need to travel and promote use	✓✓	✓✓	✓✓	Probable	Countywide	Direct	The co-location of ancillary minerals related infrastructure at active mineral sites is likely to have a very positive effect on reducing the need to travel, by ensuring that proximity	ENV1: Consider amending part 2 of the policy as follows

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
of sustainable transport options							<p>between mineral extraction and processing etc is minimised. It is recognised that such activities should be ancillary to the main purposes of the permission and that the continued, permanent use of such equipment will be resisted as this would result in freestanding industry in the open countryside that could increase distances travelled in terms of importing raw materials to them.</p> <p>Instead, the policy aims to ensure that permanent infrastructure is located upon suitable employment land that is well located in relation to the main centres of demand for the processed or manufactured products and the primary road network for onward transportation. However, it is considered that this requirement could be better reflected in the policy wording and that the use of rail is encouraged.</p> <p>In addition, the policy could require the need for a permanent facility to be demonstrated as transportation from minerals sites to employment sites could increase trips compared to the use of a temporary ancillary facility at an active mineral site.</p>	<p>a) Where the site can be satisfactorily located on employment land that is well related to markets and the rail or primary road network, except where they are located on a strategic or specific use employment site as identified by County Durham Plan Policy 2 (Employment Land).</p> <p>ENV2: As for SOC1</p>
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link	-
7. To develop a sustainable and diverse	✓	✓	✓	Probable	Countywide	Direct	Where proposals for ancillary infrastructure are permitted at active sites, in accordance with the policy it will help to reduce the	ECON1: As for SOC1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
economy with high levels of employment							<p>transportation costs associated with minerals working and support business viability.</p> <p>The policy also ensures that permanent proposals on employment sites will not impact on the strategic or specific employment uses identified by the County Durham Plan or have adverse impacts on other businesses located on the employment site. However, the policy could be further strengthened by ensuring that the need for permanent ancillary minerals related infrastructure is demonstrated as if not, the land could be used for other businesses.</p>	
8. To reduce the causes of climate change	✓	✓	✓	Probable	Countywide	Direct	<p>The co-location of ancillary minerals related infrastructure at active mineral sites is likely to have a very positive effect on reducing transport emissions. In response to previous SA recommendations that recognised that power supply to such infrastructure could be through diesel generators if no mains electricity supply exists, the supporting text also states that consideration should always be given to how emissions can be minimised through a grid connection to the site and/or local renewable energy generation with battery storage for the running of such equipment. This could be strengthened further by switching the order so more emphasis is first placed on renewable energy generation.</p> <p>However, in some circumstances, the best way to reduce carbon emissions may be to utilise existing ancillary infrastructure at a nearby site if possible, rather than</p>	<p>ENV3: Amend wording to 'To help mitigate climate change impacts from on-site processing activities consideration should always be given to how emissions can be minimised through local renewable energy generation with battery storage for the running of such equipment and/or a grid connection to the site.</p> <p>ENV4: As for SOC2</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							developing new plant and the associated energy requirements. This could outweigh transport emissions.	
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0				No clear link	
10. To protect and enhance biodiversity and geodiversity	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct	Proposals that are permitted in accordance with the policy will contribute towards reducing minerals related traffic and the associated impact this can have on biodiversity in terms of noise and vehicle emissions. However, whilst there are likely to be minimal impacts upon employment sites, proposals on active mineral sites could increase the associated impact of mineral working of the area to biodiversity and would need careful consideration. Criteria d aims to ensure that there will be no unacceptable adverse impacts on the environment. However, in certain circumstances, it may be of greater benefit to biodiversity to utilise existing ancillary related infrastructure on nearby mineral sites where this is possible and viable and where the use would not significantly delay restoration efforts (and the achievement of biodiversity net gain) of the host site. The potential benefits of this approach is recognised in the supporting text	ENV5: As for SOC2

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							but could be further addressed within the policy text.	
11. To protect and enhance the quality and character of landscape and townscape	✓/x	✓/x	✓/x	Possible	Countywide	Direct	<p>The policy aims to ensure that permanent ancillary minerals related development in the open countryside is resisted and that employment sites are alternatively considered. The temporary location of ancillary minerals related development at active mineral sites may also provide the most appropriate location for processes that could be difficult to accommodate elsewhere. For example, they can benefit through being either located within the voids created by mineral working or by the screening afforded by topography planting or noise attenuation bunds.</p> <p>However, whilst location on employment sites may be less sensitive, temporary proposals on active mineral sites could increase the associated landscape and visual impact of mineral working in the area and would need careful consideration, particularly if development is proposed within the North Pennines AONB, Durham Heritage Coast, Areas of Higher Landscape Value or the Greenbelt. Criteria d aims to ensure that there will be no unacceptable adverse impacts on the environment. However, in certain circumstances, it may be of greater benefit to landscape character to utilise existing ancillary related infrastructure on nearby mineral sites, rather than duplicating infrastructure where this is possible and viable and where the use would not significantly delay restoration efforts (and the achievement of landscape enhancement) of</p>	ENV6: As for SOC2

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							the host site. The potential benefits of this approach is recognised in the supporting text but could be further addressed within the policy text.	
12. To protect and enhance cultural heritage & the historic environment	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct	The policy aims to ensure that permanent ancillary minerals related development in the open countryside is resisted and that employment sites are alternatively considered. This could contribute towards ensuring that the longer term setting of heritage assets are conserved. However, whilst location on employment sites may be less sensitive, proposals on active mineral sites could increase adverse impacts of mineral working to the historic environment and would need careful consideration. Criteria d aims to ensure that there will be no unacceptable adverse impacts on the environment. However, in certain circumstances, it may be of greater benefit to landscape character to utilise existing ancillary related infrastructure on nearby mineral sites where this is possible and viable and where the use would not significantly delay restoration efforts of the host site. The potential benefits of this approach is recognised in the supporting text but could be further addressed within the policy text.	ENV7: As for SOC2
13. To protect and improve air, water and soil resources	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct	The co-location of ancillary minerals related infrastructure at active mineral sites is likely to have a very positive effect on reducing transport emissions and associated emission to air. The policy also aims to ensure that permanent ancillary minerals related development in the open countryside is	ENV8: As for SOC2

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>resisted and that employment sites are alternatively considered. This could contribute towards protecting the longer term quality of air, water and soil resources in the countryside.</p> <p>However, whilst location on employment sites may be less sensitive, temporary proposals on active mineral sites could increase the cumulative impact and risk of pollution to air, water and soil resources, along with the disturbance to more land for this purpose. Criteria d aims to ensure that there will be no unacceptable adverse impacts on the environment. However, in certain circumstances, it may be of greater benefit to air, water and soil resources to utilise existing ancillary related infrastructure on nearby mineral sites where this is possible and viable and where the use would not significantly delay restoration efforts of the host site. The potential benefits of this approach is recognised in the supporting text but could be further addressed within the policy text.</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	?	?	?	Uncertain	Countywide	Direct	The supporting text to the policy recognises that there may be advantages of ancillary mineral related development being located at one site being able to serve other nearby mineral sites. This would help to reduce the duplication of infrastructure and minimise the use of resources and waste. However, this is not backed up by the policy criterion.	ENV9: As for SOC2
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Probable	Countywide	Direct	Overall, proposals that are permitted in accordance with the policy as drafted, will contribute towards reducing minerals related traffic and associated emissions and impacts on communities. The policy will also protect social and environmental receptors in the countryside in the longer term by directing permanent ancillary minerals related infrastructure to suitable employment sites. The policy requires that in considering proposals that there will be no uncappable adverse impacts (either individually or cumulatively) on the environment, human health, the amenity of local communities or other businesses. However, it is considered that the sustainability of the policy could be strengthened by: <ul style="list-style-type: none"> • Requiring applicants to demonstrate the need for permanent ancillary minerals related infrastructure 	As for all mitigation measures above

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<ul style="list-style-type: none"> Ensuring that any sustainability advantages of utilising existing infrastructure on nearby sites are considered and utilised where they would minimise harm overall and reduce resource use and waste Ensuring the policy considers the location of employment sites and potential use of rail. 	

Table C12: Policy MW11 Periodic Review of existing Mineral Planning Permissions and Dormant Mineral Planning Permissions

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	✓	✓	✓	Possible	Countywide	Direct and potential for permanent effects (e.g. through conditions relating to after-uses)	Possible positive effects are predicted against this SA objective as new or updated conditions for working and restoring minerals sites, when agreed through the periodic review process could further safeguard communities from any adverse effects of minerals working (e.g. by updating conditions relating to working hours, vehicle movements, noise, dust etc) and contribute towards the achievement of social benefits on restoration. In the event that interest in the working of dormant mineral permissions occurs over the DPD period, full modern working and	SOC1: Amend policy wording as follows or similar “...restoration, after use and aftercare schemes deliver beneficial environmental and social enhancements through the high-quality restoration or if this is not practicable appropriate restoration schemes.”

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							restoration conditions will be required before working can resume. Ensuring that there will be no unacceptable adverse impact on human health or the amenity of local communities when considering and agreeing new schemes of modern working and restoration at dormant sites will also contribute towards safeguarding communities. The policy could however be strengthened by ensuring it recognises potential social benefits alongside environmental enhancement relating to restoration, after-use and aftercare schemes.	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	No clear link.	-
4. To reduce health inequalities and promote	✓	✓	✓	Possible	Countywide	Direct and potential for	Possible positive effects are predicted against this SA objective as new or updated conditions for working and	SOC2: As for SOC1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
healthy lifestyles						permanent effects	<p>restoring minerals sites, when agreed through the periodic review process could further safeguard communities from any adverse of minerals working, including to health and wellbeing (e.g. by updating conditions relating to noise, dust etc) and contribute towards the social benefits which benefit health and wellbeing on restoration. For example, new recreational areas, enhanced rights of way networks etc.</p> <p>In the event that interest in the working of dormant mineral permissions occurs over the DPD period, full modern working and restoration conditions will be required before working can resume. Ensuring that there will be no unacceptable adverse impact on human health or the amenity of local communities when considering and agreeing new schemes of modern working and restoration at dormant sites will also contribute towards</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							safeguarding health and wellbeing. As stated against SA objective 1 however, the policy could be strengthened by ensuring it recognises potential social benefits alongside environmental enhancement relating to restoration, after-use and aftercare schemes	
5. To reduce the need to travel and promote use of sustainable transport options	✓	✓	✓	Possible	Countywide	Direct and potential for permanent effects	<p>Possible positive effects are predicted against this SA objective as new or updated conditions for working and restoring minerals sites, when agreed through the periodic review process could restrict vehicle movements for example or lead to the enhancement of the public rights of way network.</p> <p>Whilst resumption of working at dormant sites would increase vehicle movements over and above existing levels in County Durham, it is now expected that most of the dormant permissions in County Durham will never be worked again as 25 years have passed since these sites were first registered.</p>	<p>ENV1: Consider amending the policy wording as follows or similar:</p> <p>Through the Periodic Review of existing active mineral planning permissions and the process of considering new schemes for modern working and restoration conditions on dormant mineral sites, the Mineral Planning Authority will seek to agree new schemes of conditions with mineral operators to modern standards to ensure:</p> <ul style="list-style-type: none"> • continuously high working and environmental standards; • that there will be no unacceptable adverse impact on the environment, human health or the amenity of local communities; and • in accordance with Policy MWX that restoration, after use and aftercare schemes deliver beneficial environmental and social enhancements through the high-quality restoration or if this is not practicable appropriate restoration schemes.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							The agreement of new schemes of modern working and restoration would also be likely to minimise associated vehicle movements. However, whilst the avoidance of unacceptable adverse social and environmental effects as stated within the policy is paramount, the policy could strengthen its ambition by setting out that the key purpose of agreeing a new scheme of conditions with operators is to ensure continuously high working and environmental standards.	
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link.	-
7. To develop a sustainable and diverse economy with high levels of employment	0	0	0	-	-	-	Minor positive effect. By use of the wording 'seek to agree new schemes of conditions' the policy recognises that mineral operators can appeal the effect of the new conditions, where they are considered to restrict working rights and economic viability.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
8. To reduce the causes of climate change	✓	✓	✓	Possible	Countywide	Indirect and Potential for Permanent Effects	<p>Possible positive effects are predicted as the agreement of new or updated of conditions could indirectly reduce greenhouse gas emissions or contribute to their sequestration e.g. through conditions relating to vehicle movements, other working methods or the restoration and after-uses of sites.</p> <p>Whilst resumption of working at dormant sites would increase greenhouse gas emissions over and above existing levels in County Durham, it is expected that most of the dormant permissions in County Durham will now never be worked again as 25 years have passed since these sites were first registered. The agreement of new schemes of modern working and restoration would also be likely to minimise associated emissions through for example conditions relating to working methods, vehicle movements etc.</p>	ENV2 – As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							However, whilst the avoidance of unacceptable adverse social and environmental effects as stated within the policy is paramount, the policy could strengthen its ambition by setting out that the key purpose of agreeing a new scheme of conditions with operators is to ensure continuously high working and environmental standards.	
9. To respond and enable adaptation to the inevitable impacts of climate change	✓	✓	✓	Possible	Countywide	Indirect and Potential for Permanent Effects	Possible positive effects are predicted as the agreement of new or updated conditions relating to after uses could enhance opportunities to mitigate pre-existing or potential future flood risk	-
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Possible	Countywide	Direct and Indirect. Potential for Permanent Effects	Possible positive effects are predicted against this SA objective as new or updated conditions for working and restoring minerals sites, when agreed through the periodic review process could directly and indirectly safeguard biodiversity and geodiversity from any adverse effects of minerals working (e.g. by updating conditions relating to noise	ENV3 – As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>which could disturb species etc) and contribute towards the achievement of biodiversity net gains on restoration.</p> <p>In the event that interest in the working of dormant mineral permissions occurs over the DPD period, full modern working and restoration conditions will be required before working can resume. Ensuring that there will be no unacceptable adverse impact on the environment when considering and agreeing new schemes of modern working and restoration at dormant sites is also likely to contribute towards safeguarding biodiversity and geodiversity and particularly habitats and species within designated sites such as Natura 2000 sites and SSSI's.</p> <p>However, please note it is expected that most of the dormant permissions in County Durham will now never be worked again as 25 years have passed since these sites were first registered.</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Whilst the avoidance of unacceptable adverse social and environmental effects as stated within the policy is paramount, the policy could strengthen its ambition by setting out that the key purpose of agreeing a new scheme of conditions with operators is to ensure continuously high working and environmental standards.	
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Possible	Countywide	Direct Potential for Permanent Effects	Possible positive effects are predicted against this SA objective as new or updated conditions for working and restoring minerals sites, when agreed through the periodic review process could safeguard landscape character and quality from any adverse effects of minerals working (e.g. by updating conditions relating to the phased working and restoration of sites for example) and contribute towards the achievement of landscape enhancement following restoration. In the event that interest in the working of dormant mineral permissions occurs over the DPD period, full modern working and	ENV4 – As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>restoration conditions will be required before working can resume. Ensuring that there will be no unacceptable adverse impact on the environment when considering and agreeing new schemes of modern working and restoration at dormant sites is also likely to contribute towards safeguarding landscape character and quality and particularly landscape and scenic beauty within the North Pennines AONB and the special character of Durham's Heritage Coast. However, please note it is expected that most of the dormant permissions in County Durham will now never be worked again as 25 years have passed since these sites were first registered.</p> <p>Whilst the avoidance of unacceptable adverse social and environmental effects as stated within the policy is paramount, the policy could strengthen its ambition by setting out that the key purpose of agreeing a new scheme of conditions</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							with operators is to ensure continuously high working and environmental standards.	
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Possible	Countywide	Direct Potential for Permanent Effects	<p>Possible positive effects are predicted against this SA objective as new or updated conditions for working and restoring minerals sites, when agreed through the periodic review process could safeguard the historic environment from any adverse effects of minerals working (e.g. by updating conditions relating to archaeological assessment, for example)</p> <p>In the event that interest in the working of dormant mineral permissions occurs over the DPD period, full modern working and restoration conditions will be required before working can resume. Ensuring that there will be no unacceptable adverse impact on the environment when considering and agreeing new schemes of modern working and restoration at dormant sites is also likely to contribute towards safeguarding</p>	ENV5 – As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>cultural heritage and the historic environment</p> <p>However, please note it is expected that most of the dormant permissions in County Durham will now never be worked again as 25 years have passed since these sites were first registered.</p> <p>Whilst the avoidance of unacceptable adverse social and environmental effects as stated within the policy is paramount, the policy could strengthen its ambition by setting out that the key purpose of agreeing a new scheme of conditions with operators is to ensure continuously high working and environmental standards.</p>	
13. To protect and improve air, water and soil resources	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Possible positive effects are predicted against this SA objective as new or updated conditions for working and restoring minerals sites, when agreed through the periodic review process could safeguard air, water and soil resources from any adverse effects of minerals working (e.g. by updating conditions relating to dust,</p>	ENV6 – As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>water abstraction, soil management etc)</p> <p>In the event that interest in the working of dormant mineral permissions occurs over the DPD period, full modern working and restoration conditions will be required before working can resume. Ensuring that there will be no unacceptable adverse impact on the environment when considering and agreeing new schemes of modern working and restoration at dormant sites is also likely to contribute towards safeguarding air, water and soil resources. However, please note it is expected that most of the dormant permissions in County Durham will now never be worked again as 25 years have passed since these sites were first registered.</p> <p>Whilst the avoidance of unacceptable adverse social and environmental effects as stated within the policy is paramount, the policy could strengthen its ambition by setting out that the key purpose of agreeing</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							a new scheme of conditions with operators is to ensure continuously high working and environmental standards.	
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Possible positive effects are predicted against this SA objective as new or updated conditions for working and restoring minerals sites, when agreed through the periodic review process could ensure for example that soil resources are managed properly so they can be recovered through the restoration of sites as opposed to disposed of elsewhere.</p> <p>Whilst the avoidance of unacceptable adverse social and environmental effects as stated within the policy is paramount, the policy could strengthen its ambition by setting out that the key purpose of agreeing a new scheme of conditions with operators is to ensure continuously high working and environmental standards.</p>	ENV7 – As for ENV1
15. To improve the sustainability	✓	✓	✓	Probable	Countywide	Direct and Potential for	The agreement of new schemes of conditions to ensure that the continued	As for SOC1 / ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
of minerals extraction and use and reduce adverse impacts on communities and the environment						Permanent Effects	working and restoration of active minerals sites and resumption of working/restoration at dormant sites is done so without unacceptable adverse social or environmental is directly compatible with this SA objective. However, the policy could strengthen this ambition by also setting out that the key purpose of agreeing a new scheme of conditions with operators is to ensure continuously high working and environmental standards. The social benefits of restoration schemes could also be recognised.	

Table C13: Policy MW12 Oil and Gas Exploration, Appraisal and Production

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	<p>No clear link.</p> <p>Whilst ensuring an ongoing, secure supply of oil and gas during the UK's transition to low carbon solutions may contribute towards minimising home heating costs and associated fuel poverty the policy does not encourage oil and gas development in County Durham. Rather its purpose is to sets the criteria by which any proposals for exploration, appraisal and production will be determined in the event that they are forthcoming over the DPD period.</p>	-
2. To promote strong secure communities	0	✓	✓	Possible	Countywide	Direct and Temporary	<p>A number of criterion within the policy will contribute towards safeguarding communities in the event that oil and gas proposals are forthcoming over the DPD period. These include:</p> <ul style="list-style-type: none"> • Overarching requirement that for each stage of conventional and unconventional oil and gas development, any future proposals will be required to demonstrate that there will be no unacceptable adverse impacts upon the amenity of local communities. • Drilling rigs, well sites and all other associated facilities and infrastructure with the exploration and appraisal 	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>phases are sited in the least sensitive locations</p> <ul style="list-style-type: none"> • Exploration and appraisal phases are for an agreed temporary time • Extraction, processing and transport facilities are located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements <p>However, please note that there is uncertainty whether commercially exploitable supplies of oil and gas exist in County Durham. Prospects for exploration are currently unlikely in the short term as there are currently no licenses for oil or gas exploration, appraisal or production in the County at present. The highly sensitive nature of the environment in large parts of the county would also present a significant challenge for the oil and gas industry in bringing forth an acceptable scheme.</p>	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	<p>No clear link.</p> <p>As County Durham does not have a history of any form of conventional or unconventional oil or gas exploration or production, new industry may increase local training opportunities. However, the policy does not encourage oil and gas development in County Durham. Rather its purpose is to set the framework by which proposals for exploration, appraisal and production will be determined in the event they are forthcoming over the DPD period.</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
4. To reduce health inequalities and promote healthy lifestyles	0	✓	✓	Possible	Countywide	Direct and Temporary	As for SA objective 2, several criteria within the policy will contribute towards safeguarding health and wellbeing in the event that oil and gas proposals are forthcoming over the DPD period.	-
5. To reduce the need to travel and promote use of sustainable transport options	0	✓	✓	Possible	Countywide	Direct and Temporary	Criterion C2 which requires extraction, processing and transport facilities to be located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements is likely to contribute towards reducing travel/transportation distances in the event that proposals are forthcoming over the DPD period. A further policy considering the transportation of oil and gas at the production stage sets out the priorities by which oil and gas should be transported i.e. pipelines should be prioritised where appropriate followed by rail or road transport.	-
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link. As County Durham does not have a history of any form of conventional or unconventional oil or gas exploration or production, new industry may create jobs in deprived areas. However, the policy does not encourage oil and gas development in County Durham. Rather, its purpose is to set the framework by which proposals for exploration, appraisal and production will be determined in the event that they are forthcoming over the DPD period.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
7. To develop a sustainable and diverse economy with high levels of employment	0	0	0	-	-	-	<p>No clear link.</p> <p>As County Durham does not have a history of any form of conventional or unconventional oil or gas exploration or production, new industry could help to diversify County Durham's economy and create economic benefits locally through the creation of direct employment together with indirect, supply chain jobs until resources from oil or gas production fields are exhausted.</p> <p>However, the policy does not encourage oil or gas development in County Durham. Rather, its purpose is to set the framework by which proposals for exploration, appraisal and production will be determined in the event that they are forthcoming over the DPD period.</p>	-
8. To reduce the causes of climate change	0	x	x	Possible	Countywide	Direct and Potential for Permanent Effects	<p>The burning of oil and gas are incompatible with climate change objectives. However, it is understood that the Government seeks to maintain an ongoing supply in the interests of maintaining energy security etc during the transition to net zero emissions. In the event that licenses for oil or gas exploration in County Durham are issued these would only be following independent advice to the Government on how proceeding with licensing would impact upon UK climate and energy goals. The Council has no influence on the issuing of the licenses.</p> <p>The policy does not encourage oil or gas development in County Durham. Rather it sets the framework by which proposals for exploration, appraisal and production will be</p>	<p>ENV1: Include the following wording or similar:</p> <p>C2) Extraction, processing and transport facilities are located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements. As a Climate Emergency has been declared in County Durham proposals will need to demonstrate that they mitigate emissions as far as possible and offset residual emissions.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							determined in the event that they are forthcoming over the DPD period. Criterion C2 which requires extraction, processing and transport facilities to be located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements may take into account measures which directly or indirectly minimise greenhouse gas emissions. For example, proposals which include carbon capture utilisation and storage (CCUS) or minimise emissions associated with transport. However, it is likely that greenhouse gas emissions will increase in the event that proposals are approved. To obviate this the policy could be more explicit towards climate change mitigation and require that proposals for oil and gas offset any residual emissions.	
9. To respond and enable adaptation to the inevitable impacts of climate change	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	The policy does not encourage oil or gas development in County Durham. Rather it sets the framework by which proposals for exploration, appraisal and production will be determined in the event that they are forthcoming over the DPD period. Adherence to criterion C2 which requires extraction, processing and transport facilities to be located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements is likely to take account of impacts on flood risk and opportunities for flood alleviation.	-
10. To protect and	0	✓	✓	Possible	Countywide	Direct and Potential	The SA recognises that the highly sensitive nature of the environment in large parts of the	ENV2: Clarify C3 further as follows or similar:

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
enhance biodiversity and geodiversity						for Permanent Effects	<p>county would present a significant challenge for the oil and gas industry in bringing forth an acceptable scheme. Nevertheless, several criterion within the policy will contribute towards safeguarding biodiversity and geodiversity in the event that oil and gas proposals are forthcoming over the DPD period. These include:</p> <ul style="list-style-type: none"> • Overarching requirement that for each stage of conventional and unconventional oil and gas development, any future proposals will be required to demonstrate that there will be no unacceptable adverse impacts upon the environment (e.g. protected species/designated sites etc). • Drilling rigs, well sites and all other associated facilities and infrastructure with the exploration and appraisal phases are sited in the least sensitive locations (e.g. away from designated sites or irreplaceable habitats) • Exploration and appraisal phases are for an agreed temporary time (will help to limit disturbance to species) • Extraction, processing and transport facilities are located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements (these could include 	Existing permitted facilities and infrastructure are used for the development of any additional fields discovered unless it is demonstrated that this would not be technically feasible and any unacceptable adverse impacts can be mitigated;

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>measures to minimise impacts to biodiversity/geodiversity and provide net gains)</p> <ul style="list-style-type: none"> Existing permitted facilities are used for the development of any additional fields discovered. (avoiding, the development of unnecessary facilities and infrastructure will help to protect existing habitat and species.) <p>Proposals at each stage must provide for the restoration and aftercare of the site to a high standard at the earliest opportunity. (restoration proposals could provide biodiversity net gains)</p>	
11. To protect and enhance the quality and character of landscape and townscape	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>The SA recognises that the highly sensitive nature of the environment in large parts of the county would present a significant challenge for the oil and gas industry in bringing forth an acceptable scheme. Nevertheless, several criterion within the policy will contribute towards safeguarding landscape character and quality in the event that oil and gas proposals are forthcoming over the DPD period. These include:</p> <ul style="list-style-type: none"> Overarching requirement that for each stage of conventional and unconventional oil and gas development, any future proposals will be required to demonstrate that there will be no unacceptable adverse impacts upon the environment (e.g. to the primary 	ENV3: As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>objectives of national landscape designations i.e.the North Pennines AONB and Durham Heritage Coast).</p> <ul style="list-style-type: none"> • Drilling rigs, well sites and all other associated facilities and infrastructure with the exploration and appraisal phases are sited in the least sensitive locations (e.g. outside of landscape designation where possible or areas of higher landscape value) • Exploration and appraisal phases are for an agreed temporary time (will help to limit duration of landscape and visual impacts) • Extraction, processing and transport facilities are located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements (these could include measures to minimise landscape and visual impact e.g. screening) • Existing permitted facilities are used for the development of any additional fields discovered. (avoiding, the development of unnecessary facilities and infrastructure will help to protect landscape character.) <p>Proposals at each stage must provide for the restoration and aftercare of the site to a high</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							standard at the earliest opportunity. (restoration proposals could provide improvements to landscape character and help deliver the requirements of the County Durham Landscape Strategy)	
12. To protect and enhance cultural heritage & the historic environment	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Several criterion within the policy will contribute towards safeguarding heritage in the event that oil and gas proposals are forthcoming over the DPD period. These include:</p> <ul style="list-style-type: none"> • Overarching requirement that for each stage of conventional and unconventional oil and gas development, any future proposals will be required to demonstrate that there will be no unacceptable adverse impacts upon the environment (e.g. likely to take account of any substantial harm to or loss of heritage assets). • Drilling rigs, well sites and all other associated facilities and infrastructure with the exploration and appraisal phases are sited in the least sensitive locations (e.g. may help to direct proposals outside of conservation areas or locations which adversely affect the setting of assets) • Exploration and appraisal phases are for an agreed temporary time (will help to limit any impacts which could 	ENV4: As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>affect structural viability of assets e.g. Drilling and vibration)</p> <ul style="list-style-type: none"> Extraction, processing and transport facilities are located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements (these could include measures to ensure the recording and appropriate protection of undiscovered archaeological features for example) Existing permitted facilities are used for the development of any additional fields discovered. (avoiding, the development of unnecessary facilities and infrastructure will help to protect heritage assets and the historic environment.) 	
13. To protect and improve air, water and soil resources	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>The overarching requirement to ensure that there will be no unacceptable adverse impacts upon the environment or human health will contribute towards safeguarding air, water and soil resources from pollution. Locating drilling rigs, well sites and associated exploration and appraisal facilities and infrastructure in the least sensitive locations could also direct development away from best and most versatile agricultural land or groundwater source protection zones. Ensuring that existing permitted facilities are</p>	ENV5: As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							used for the development of any additional fields discovered where possible will also contribute towards protecting soil resources	
14. To reduce waste and encourage the sustainable and efficient use of materials	0	✓	✓	Possible	Countywide	Indirect and Potential for Permanent Effects	Ensuring that existing permitted facilities are used for the development of any additional fields discovered, where possible will indirectly contribute towards the efficient use of materials and avoiding waste associated with the decommissioning stages.	ENV6: As for ENV1
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Whilst there is uncertainty whether commercially exploitable supplies of oil and gas exist in County Durham and prospects for exploration are currently unlikely in the short term due to the absence of licences, the inclusion of the oil and gas policy within the DPD and its associated criteria will help to safeguard communities and the environment in the event that proposals are forthcoming over the DPD period. As mentioned above, further recognition could be given to climate change within the policy and ensuring that existing permitted infrastructure (in addition to facilities) is used for the development of additional fields discovered.	-

Table C14: Policy MW13 Transport of Oil and Gas

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	Minor negative	Countywide	Direct and potential for permanent effects	The policy sets out a sequential approach to the transportation of oil and gas, with pipelines being the most preferable method. Once constructed, pipelines will place some restrictions on nearby new development which must be observed with suitable standoffs. This may limit the number of new homes which can be constructed in any given scheme but is unlikely to significantly affect the ability to meet housing need in County Durham.	N/A – this is a minor residual impact
2. To promote strong secure communities	0	✓	✓	Possible	Countywide	Direct and Temporary	The policy sets out a sequential approach to the transportation of oil and gas in order to minimise levels of heavy traffic on the local highways network. In doing so, the use of pipelines followed by rail transport will contribute towards minimising the adverse impacts of traffic on communities and lower the risk of road traffic accidents. Policy wording which advocates pipelines, only where there will be no unacceptable adverse impacts on human health or the amenity of local communities is likely to ensure for example, that impacts associated with the route of pipelines such as community displacement, loss of community facilities etc are taken into account and avoided where considered unacceptable. However, the policy could further safeguard communities by requiring applicants to demonstrate that the number of pipelines	SOC1: Consider amending policy wording as follows or similar: Proposals for oil and gas pipelines will only be permitted provided that: a) There will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities; and It can be demonstrated that the number of pipelines represent the minimum necessary to safely, serve the development and optimal route

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>represent the minimum necessary to serve the oil or gas development. It may also be useful to clarify that routes have been optimised at the design stage to take account of social impacts etc.</p> <p>Please note that the Health and Safety Executive are responsible for regulating the safety of pipelines.</p> <p>No short-term effects are predicted as prospects for oil and gas development and associated infrastructure are currently unlikely as there are currently no licenses for oil or gas exploration, appraisal or production in the County at present.</p>	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	No clear link.	-
4. To reduce health inequalities and promote healthy lifestyles	0	✓	✓	Possible	Countywide	Direct and Temporary	<p>As for SA objective 2, the sequential approach to the transportation of oil and gas will minimise levels of heavy traffic and their associated impacts on health and wellbeing e.g. as a result of noise, physical injury etc.</p> <p>Policy wording which advocates pipelines, only where there will be no unacceptable adverse impacts on human health should ensure that proposals do not result in health impacts such as the pollution of drinking</p>	SOC2: As for SOC1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>water for example and can be operated with acceptable risk to human health and safety.</p> <p>However, the policy could further safeguard health and wellbeing by requiring applicants to demonstrate that the number of pipelines represent the minimum necessary to serve the oil or gas development.</p>	
5. To reduce the need to travel and promote use of sustainable transport options	0	✓✓	✓✓	Possible	Countywide	Direct and Temporary	The sequential approach to the transportation of oil or gas is directly compatible with the SA objective as it seeks to reduce the need to travel first followed by the use of rail as a sustainable transport mode and least preferably by road where other policy conditions are met	-
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link	-
7. To develop a sustainable and diverse economy with high levels of employment	0	×	×	Possible	Countywide	Direct and potential for permanent effects.	Whilst the preference given to pipelines for the transportation of oil and gas may benefit the oil and gas industry in respect of reduced haulage costs, they may cause disruption to livelihoods elsewhere e.g. to the working of agricultural land for example. As drafted, the policy and supporting text does not take into account the potential impact of pipeline development on other business and livelihoods in County Durham.	ECON1: Amend policy or supporting text to ensure that the local economic impacts of pipeline development are taken into account when determining proposals.
8. To reduce the causes of climate change	0	✓	✓	Possible	Countywide	Direct and Potential for	The SA has assessed the climate change impact of oil and gas development as negative against the Oil and Gas Development Policy. However, this policy by	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
						Permanent Effects	sequentially preferring pipelines followed by rail for the transportation of oil and gas as opposed to by road will help to minimise greenhouse gas emissions associated with such development.	
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	-	-	-	No clear link.	-
10. To protect and enhance biodiversity and geodiversity	0	✓/x	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Policy wording which advocates pipelines, only where there will be no unacceptable adverse impacts on the environment is likely to ensure for example that proposals which define routes that traverse designated sites or harm irreplaceable habitat are avoided. However, whilst the use of pipelines could avoid the negative effects to biodiversity associated with transportation of oil and gas by road, such as decline to certain habitats as a result of emissions to air, the construction of the pipeline (particularly, underground pipelines) could cause temporary or permanent displacement or loss of priority habitats and species.</p> <p>Environmental information submitted with proposals will need to ensure adequate and appropriate mitigation for any biodiversity loss which may occur as a result of development. Biodiversity Net Gains should also be sought as part of wider restoration proposals in order</p>	<p>ENV1: Environmental information submitted with proposals will need to ensure adequate and appropriate mitigation for any biodiversity loss which may occur as a result of development. Biodiversity Net Gains should also be sought as part of wider restoration proposals in order to achieved possible longer term positive effects.</p> <p>ENV2: Consider amending policy wording as follows or similar:</p> <p>Proposals for oil and gas pipelines will only be permitted provided that:</p> <p>a) There will be no unacceptable adverse impacts</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							to achieved possible longer term positive effects. The policy could further safeguard biodiversity and geodiversity by requiring applicants to demonstrate that the number of pipelines represent the minimum necessary to serve the oil or gas development. It may also be useful to clarify that routes have been optimised at the design stage to take account of environmental impacts etc.	on the environment, human health or the amenity of local communities; and b) It can be demonstrated that the number of pipelines represent the minimum necessary to safely, serve the development and optimal route
11. To protect and enhance the quality and character of landscape and townscape	0	✓/x	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Policy wording which advocates pipelines, only where there will be no unacceptable adverse impacts on the environment is likely to ensure for example that major proposals within the North Pennines AONB or Durham Heritage Coast are avoided, unless exceptional circumstances can be demonstrated.</p> <p>However, the construction of overground or underground pipelines could cause adverse impacts depending on the landscape's capacity to accommodate change, it's relationship with other development and the visual impact of proposals.</p> <p>Environmental information submitted with proposals should include an assessment of the landscape's sensitivity that the pipeline corridor will transect along with a visual impact assessment. Where possible the routes of pipelines should avoid woodland, be routed through existing gaps in hedgerows and mitigation should take account of the limitations around replanting of landscape features along the pipeline route. Restoration proposals should also include measures</p>	<p>ENV3: Environmental information submitted with proposals should include an assessment of the landscape's sensitivity that the pipeline corridor will transect along with a visual impact assessment. Where possible the routes of pipelines should avoid woodland, be routed through existing gaps in hedgerows and mitigation should take account of the limitations around replanting of landscape features along the pipeline route. Restoration proposals should also include measures which enhance original landscape quality.</p> <p>ENV4: As for ENV2</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							which enhance original landscape quality in order to achieve positive longer term effects. The policy could further safeguard landscape character and quality by requiring applicants to demonstrate that the number of pipelines represent the minimum necessary to serve the oil or gas development. It may also be useful to clarify that routes have been optimised at the design stage to take account of environmental impacts etc.	
12. To protect and enhance cultural heritage & the historic environment	0	✓/✗	✓/✗	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Policy wording which advocates pipelines, only where there will be no unacceptable adverse impacts on the environment is likely to ensure proposals which lead to any harm to a heritage asset will require a clear and convincing justification. Where it is possible to remove any such harm or to minimise it this should be the case.</p> <p>The prioritisation of pipelines over road transportation will also avoid any direct and indirect adverse effects to heritage which can occur as a result of haulage e.g. through vibration and accidents. However, the routes and construction of pipelines will still have the potential to have adverse effects on cultural heritage and the historic environment. These may be permanent if for example historic earthworks such as rigg and furrow are disrupted or temporary if overground pipelines impact on the setting of an asset until they are decommissioned.</p> <p>Environmental information submitted with proposals should include an assessment of the short, mid and long term impact upon cultural and heritage assets, setting out how</p>	<p>ENV5: Environmental information submitted with proposals should include an assessment of the short, mid and long term impact upon cultural and heritage assets, setting out how adverse effects could be avoided or mitigated.</p> <p>ENV6: As for ENV2</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							adverse effects could be avoided or mitigated. The policy could further safeguard the historic environment by requiring applicants to demonstrate that the number of pipelines represent the minimum necessary to serve the oil or gas development. It may also be useful to clarify that routes have been optimised at the design stage to take account of environmental impacts etc.	
13. To protect and improve air, water and soil resources	0	✓/✗	✓/✗	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Air – As the policy aims to prioritise the use of pipelines for the transportation of oil and gas over road transportation, emissions to air associated with road transportation will be avoided.</p> <p>Water – The policy aims to ensure that proposals for oil and gas pipelines will only be permitted provided that there will be no unacceptable adverse impacts on the environment. It is therefore assumed that routes which could impact on vulnerable water abstraction points etc would be avoided. However, the route and construction of pipelines could still have the potential to impact upon hydrology and surface and ground water quality. Information of potential short, mid and long term effects would need to be provided with proposals along with associated mitigating activity. Planning conditions may need to be imposed to ensure that water quality is protected.</p> <p>Soil – Whilst the policy aims to ensure that proposals for oil and gas pipelines will only be permitted provided that there will be no unacceptable adverse impacts on the environment and that environmentally</p>	<p>ENV7: Information on potential short, mid and long term effects to water and soil resources would need to be provided with proposals along with associated mitigating activity. Planning conditions may need to be imposed to ensure that water quality and soil resources are protected and managed properly.</p> <p>ENV8: As for ENV2</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>sensitive locations are avoided, the route and construction of pipelines could incur the loss of better quality soil, degradation, compaction and potential contamination of soil.</p> <p>Information on potential impacts to soil and how soil resources will be managed will need to be submitted alongside proposals.</p> <p>Planning conditions may need to be imposed to ensure that soil quality is protected.</p> <p>The policy could further safeguard water and soil resources by requiring applicants to demonstrate that the number of pipelines represent the minimum necessary to serve the oil or gas development. It may also be useful to clarify that routes have been optimised at the design stage to take account of environmental impacts etc.</p>	
14. To reduce waste and encourage the sustainable and efficient use of materials	0	0	0	-	-	-	No clear link	-
15. To improve the sustainability of minerals extraction	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	The policy seeks to minimise the social and environmental impacts of transporting oil and gas by road by setting out a sequential approach to the use of pipelines, followed by rail and then by road where other DPD policy	As above (all mitigation measures apply)

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
and use and reduce adverse impacts on communities and the environment							<p>requirements are met. The policy also seeks to ensure that there will be no unacceptable adverse social or environmental impacts as a result of pipeline proposals which is likely to result in the routing of them away from sensitive locations.</p> <p>Whilst positive effects overall have been predicated, the SA has identified several mitigation measures relating to:</p> <ul style="list-style-type: none"> • The need for further environmental information to be submitted with proposals; • The economic effects of proposals to be considered; and <p>Additional wording which could be include within the policy to further safeguard communities and the environment.</p>	

Table C15: Policy MW14 Vein Minerals, Metalliferous Minerals, Lithium and Silica Sand

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	Negligible	Countywide and North East region	Indirect Temporary but long term-linked to the working of any permitted reserves	Silica sand can be used to make glass and construction materials which can be used to construct new homes. However, the policy does not encourage silica sand extraction. Rather its purpose is to sets the criteria by which any proposals for extraction will be determined in the event that they are forthcoming over the DPD period. Please note that the highly sensitive nature of the environment in West Durham is also likely to present a challenge in bringing forth acceptable schemes	-
2. To promote strong secure communities	✓	✓	✓	Possible	West Durham	Direct and Temporary	A number of criterion within the policy will contribute towards safeguarding communities in the event that proposals for 'other minerals' are forthcoming over the DPD period. These include: <ul style="list-style-type: none"> • Overarching requirement that any future proposals will be required to demonstrate that there will be no unacceptable adverse impacts upon the amenity of local communities. • Great weight will be given to the benefits of extraction, which may include community benefits • In relation to lithium proposals, extraction, processing and transport facilities are located and operated to minimise both environmental and 	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							local amenity impacts and provide any necessary mitigation and enhancements.	
3. To improve education, training and life-long learning, and maintain a healthy labour market	✓	✓	✓	Possible	Countywide and NE region	Direct and Temporary	As County Durham does not have a recent history of working the minerals addressed by the policy or any history relating to lithium extraction, new industry may increase local training opportunities in the minerals, geology and engineering sectors. Lithium is currently subject to interest for exploration within Weardale in County Durham.	-
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Possible	West Durham	Direct and Temporary	As for SA objective 2, several criteria within the policy will contribute towards safeguarding health and wellbeing in the event that proposals are forthcoming over the DPD period.	-
5. To reduce the need to travel and promote use of sustainable transport options	✓	✓	✓	Possible	West Durham and UK	Direct and Temporary	Whilst there is uncertainty over whether proposal will be forthcoming for the extraction of the minerals addressed by the policy, their extraction could contribute towards meeting the UK's need for these minerals more locally as opposed to importing them from other countries. For example, lithium is currently mined in countries such as Australia, Chile and Argentina. In addition, a local supply of lithium could help meet the UK's demand for electric vehicle battery that represent a more sustainable form of transport than petrol and diesel fuelled vehicles.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>Weardale Lithium Limited received a grant from the Automative Transformation Fund ATF to support exploration and development activity as part of its feasibility study for extracting lithium from geothermal brines in County Durham.</p> <p>The policy criterion that requires lithium extraction, processing and transport facilities to be located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements is likely to contribute towards reducing travel/transportation distances in the event that proposals are forthcoming over the DPD period.</p>	
6. To alleviate deprivation and poverty	✓	✓	✓	Possible	Countywide	Direct and Temporary	As County Durham does not have a recent history of working the minerals addressed by the policy or any history relating to lithium extraction, new industry may create jobs in deprived areas. Lithium is currently subject to interest for exploration within Weardale in County Durham.	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Possible	West Durham and North East region	Direct and Temporary	As County Durham does not have a recent history of working the minerals addressed by the policy or any history relating to lithium extraction, new industry could help to diversify County Durham's economy and create economic benefits locally through the creation of direct employment together with indirect, supply chain jobs. Lithium is currently subject to interest for exploration within Weardale in County Durham and the UK's Critical Mineral Strategy (2022) supports the	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>further development of industrial cluster for mining and refining lithium both in Cornwall and North East England.</p> <p>Given the location of the mineral resources, the policy also recognises that particular regard will be given to potential impacts on tourism which could help to safeguard the sector.</p>	
8. To reduce the causes of climate change	✓/✗	✓/✗	✓/✗	Possible	Countywide and UK	Direct and Potential for Permanent Effects	<p>In the event that proposals are forthcoming and permitted in accordance with the policy, greenhouse gas emissions are likely to increase as none of the minerals addressed by the policy are currently extracted in County Durham. Permitting in accordance with Policy MW1 will however, ensure that due account is given to the impact of proposals on meeting County Durham's net zero targets.</p> <p>If Lithium is extracted it is recognised that this mineral plays a critical role in meeting the global demand for electric vehicle battery minerals which are crucial for decarbonising the transport sectors and meeting net zero climate targets. Whilst using secondary sources of lithium such as from recycled batteries and electronics will play its part, demand is projected to increase by between 6 and 13 times by 2040 under stated policies.³</p>	ENV1 Impacts can be mitigated by use of low carbon/zero carbon vehicles and use of low carbon and renewable energy sources to power plant and equipment. Restoration and aftercare schemes may contribute towards offsetting carbon produced e.g. through woodland creation.

³ IEA (2021), [The Role of Critical Minerals in Clean Energy Transitions](#)

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>In addition, meeting a proportion of the UK's demand for lithium locally as opposed to from countries such as Australia, China or Argentina will minimise transportation distances and associated emissions.</p> <p>The policy criterion which requires lithium extraction, processing and transport facilities to be located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements may minimise emissions associated with transport.</p>	
9. To respond and enable adaptation to the inevitable impacts of climate change	✓	✓	✓	Possible	West Durham	Direct and Potential for Permanent Effects	<p>In the event that proposals are forthcoming for the mineral resources included within the provisions of the policy, permitting proposals where they will not have an unacceptable adverse impact on the environment and regrading lithium where extraction, processing and transport facilities are located and operated to minimise both environmental and local amenity impacts and provide any necessary mitigation and enhancements is likely to take account for example, of impacts on flood risk and opportunities for flood alleviation.</p>	-
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Possible	West Durham	Direct and Potential for Permanent Effects	<p>The SA recognises that the highly sensitive nature of the environment in West Durham and the North Pennines could present a challenge in bringing forth acceptable schemes for the minerals included within the policy. The Policy also recognises that due to their location, particular regard will be given to the consideration and acceptability of impacts upon internationally, nationally and locally protected sites and protected species</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>The policy is partially reliant on other policies within the M&WDPD and County Durham Plan to ensure that proposals are environmentally acceptable. These policies should ensure proposals meet requirements in relation to the hierarchy of international, national and locally designated sites and protected species and provide biodiversity net gain.</p> <p>In addition, the policy criteria ensuring that great weight will be given to the benefits of extraction may include opportunities for environmental enhancement. The specific criteria regarding lithium i.e. ensuring that extraction, processing and transport facilities are located and operated to minimise environmental impacts and that high standards of restoration are achieved at the earliest opportunity is also likely to contribute towards the protection of biodiversity and geodiversity and may ensure longer term enhancement and delivery of objectives within the Local Nature Recovery Strategy.</p>	
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Possible	West Durham	Direct and Potential for Permanent Effects	The SA recognises that the highly sensitive nature of the environment in West Durham and the North Pennines could present a challenge in bringing forth acceptable schemes for the minerals included within the policy. The Policy also recognises that due to their location, particular regard will be given to the consideration and acceptability of impacts upon protected landscapes.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>The policy is partially reliant on other policies within the M&WDPD and County Durham Plan to ensure that proposals are environmentally acceptable. These policies should ensure proposals meet requirements in relation to protecting the special qualities of the North Pennines Area of Outstanding Natural Beauty (AONB) and major development is only permitted in exceptional circumstances where it can be demonstrated to be in the public interest for example.</p> <p>In addition, the policy criteria ensuring that great weight will be given to the benefits of extraction may include opportunities for environmental enhancement. The specific criteria regarding lithium i.e. ensuring that extraction, processing and transport facilities are located and operated to minimise environmental impacts and that high standards of restoration are achieved at the earliest opportunity is also likely to contribute towards the protection of landscape character and quality and may ensure longer term enhancement and delivery of objectives within the County Durham Landscape Strategy.</p>	
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Possible	West Durham	Direct and Potential for Permanent Effects	The SA recognises that the highly sensitive nature of the environment in West Durham and the North Pennines could present a challenge in bringing forth acceptable schemes for the minerals included within the policy. The Policy also recognises that due to their location, particular regard will be given to the consideration and acceptability of impacts	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>upon conservation areas and other heritage assets.</p> <p>The policy is partially reliant on other policies within the M&WDPD and County Durham Plan to ensure that proposals are environmentally acceptable. These policies should ensure proposals avoid substantial harm to heritage assets and less than substantial harm where public benefits do not outweigh harm.</p> <p>In addition, the policy criteria ensuring that great weight will be given to the benefits of extraction may include opportunities to better reveal heritage assets. The specific criteria regarding lithium i.e. ensuring that extraction, processing and transport facilities are located and operated to minimise environmental impacts and that high standards of restoration are achieved at the earliest opportunity is also likely to contribute towards the protection of the historic environment.</p>	
13. To protect and improve air, water and soil resources	✓	✓	✓	Possible	West Durham	Direct and Potential for Permanent Effects	<p>The overarching requirement to ensure that there will be no unacceptable adverse impacts upon the environment or human health will contribute towards safeguarding air, water and soil resources from pollution.</p> <p>The policy also recognises the complex geological and hydrogeological locations associated with Lithium extraction and need for a phased risk-based approach. Ensuring that lithium extraction, processing and transport facilities are located and operated to minimise environmental and amenity impacts</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>will also contribute positively to protecting air, water and soil resources.</p> <p>The potential working of the minerals mentioned within the policy will be constrained by a lesser degree by agricultural land quality as much of the agricultural land quality within upper Teesdale and Weardale is classified as poor quality.</p>	
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Probable	West Durham	Direct and Potential for Permanent Effects	As per the policy text, ensuring in the first instance that proposals are required to provide for the extraction of a steady and adequate supply of industrial or other minerals to help maintain national supply and/or meet net zero carbon ambitions and required for the purposes for which their specific qualities are essential is likely to contribute towards the conservation and efficient use of County Durham's mineral resources.	-
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	If proposals for the minerals included within the policy are forthcoming over the DPD period, the policy and its associated criteria will help to safeguard communities and the environment. Particular regard will be given to the consideration and acceptability of impacts upon protected landscapes, internationally, nationally and locally protected sites and protected species, conservation areas and other heritage assets and adverse impacts on tourism and upon amenity.	-

Table C16: Policy MW15 Peat

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	A policy which prevents the extraction of peat will have no effect on this SA objective.	-
2. To promote strong secure communities	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Indirect and Permanent	Preventing new sites for peat extraction will contribute towards protecting the amenity of existing communities from impacts associated with haulage for example. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and other landscape and nature designation contribute towards protecting the vast, majority of the resource.	-
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	Minor negative	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Indirect and Permanent	Preventing new sites for peat extraction will prevent any associated jobs and training opportunities. However, minor negative effects only are predicted given that County Durham's peat resource is considered commercially unattractive and other landscape and nature designation contribute towards protecting the vast, majority of the resource.	This is a residual impact

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
4. To reduce health inequalities and promote healthy lifestyles	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Indirect and Permanent	Preventing new sites for peat extraction will contribute towards protecting the health and wellbeing of existing communities from impacts associated with minerals working such as noise for example. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and other landscape and nature designation contribute towards protecting the vast, majority of the resource. In addition, the peat resource of County Durham largely coincides with sparsely populated areas.	-
5. To reduce the need to travel and promote use of sustainable transport options	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Direct and Permanent	Preventing new sites for peat extraction will avoid haulage and transport impacts. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and other landscape and nature designation contribute towards protecting the vast, majority of the resource. As County Durham's resource is considered commercially unattractive and the Government is phasing out the use of peat in products there is also little opportunity for a local supply of peat to minimise imports.	-
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link – the peat resource is not located within areas of deprivation.	-
7. To develop a sustainable and diverse economy	0	0	0	Minor negative	Predominantly West Durham although small pockets	Direct and Permanent	As no peat extraction sites are worked in County Durham, preventing new sites will not impact on existing employment. As County Durham's peat resource is	This is a residual impact.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
with high levels of employment					of peat exist elsewhere in County Durham.		considered commercially unattractive, preventing new sites is also unlikely to impact significantly on job creation opportunities or rural diversification. Such opportunities are also already constrained in any event by landscape and naturae designations which coincide with the peat resource. The potential for minor negative effects only are predicted.	
8. To reduce the causes of climate change	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Direct and Permanent	Peatlands are the planets largest, natural terrestrial carbon store, storing more carbon than other vegetation types, including the combined forests of Britain. County Durham has 32,000ha of peatland, storing approximately 57 million tonnes of carbon. Ensuring that no new sites are permitted will contribute towards protecting this significantly important carbon sink. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and existing landscape and nature conservation designations contribute towards the protection of the vast, majority of the resource	-
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Direct and Permanent	Peatland store vast quantities of water, contributing to flood amelioration. Dry, damaged peat is also, increasingly a wildfire hazard during heatwaves. Ensuring that no new peat extraction sites are permitted will contribute towards protecting their water attenuation role and minimise wildfire risk. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							existing landscape and nature conservation designations contribute towards the protection of the vast, majority of the resource.	
10. To protect and enhance biodiversity and geodiversity	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Direct and Permanent	Peatlands are important for biodiversity, supporting a unique assemblage of wildlife. They are included as priority habitats in the UK Biodiversity Action Plans because of the contribution they make to maintaining species diversity at the national and international level and because of the nature of the assemblages that they host. Ensuring that no new peat extraction sites are permitted will contribute towards protecting this vitally important habitat and associated species. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and the resource is covered by habitats which are qualifying species and protected either as a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) or both.	-
11. To protect and enhance the quality and character of landscape and townscape	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Direct and Permanent	County Durham's peatland resource predominantly coincides with the North Pennines Area of Outstanding Natural Beauty (AONB) which is characterised as a remote, wild and tranquil landscape. Ensuring that no new peat extraction sites are permitted will contribute towards protecting this nationally important landscape. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							unattractive and in making decisions, great weight is given to the primary purpose of the North Pennines AONB designation - 'to conserve and enhance natural beauty.'	
12. To protect and enhance cultural heritage & the historic environment	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Direct and Permanent	County Durham's North Pennines landscape holds clues to the activities of people over the last 10,000 years. Peat, also contains a record of the historic environment since the last ice age. Ensuring that no new peat extraction sites are permitted will contribute towards protecting the historic landscape, historic record. designated and non-designated heritage assets and archaeological remains best preserved in-situ. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and existing landscape and nature conservation designations contribute towards the protection of the vast, majority of the resource and associated heritage. Heritage assets within the County Durham's North Pennines area are also protected through specific designations.	-
13. To protect and improve air, water and soil resources	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Direct and Permanent	Ensuring that no new peat sites are permitted in County Durham will contribute directly to protecting this soil resource and its contribution to water attenuation and management. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and existing landscape and nature	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							conservation designations contribute towards the protection of the vast, majority of the resource.	
14. To reduce waste and encourage the sustainable and efficient use of materials	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Direct and Permanent	As peat is a non-renewable resource owing to the length of time it takes to form, ensuring that no new peat sites are permitted in County Durham will help to avoid damage and extraction. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and existing landscape and nature conservation designations contribute towards the protection of the vast, majority of the resource.	-
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	0	0	0	Minor positive	Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.	Direct and Permanent	The policy position to ensure that no new peat sites are permitted in County Durham is consistent with the NPPF and directly compatible with this SA objective. However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially unattractive and existing landscape and nature conservation designations contribute towards the protection of the vast, majority of the resource.	-

Table C17: Policy MW16 Inert Waste ‘Other Recovery’

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	✓	✓	✓	Probable	Countywide	Direct and indirect effects. Potential for permanent effects	<p>Several criteria within the policy will contribute directly and indirectly towards safeguarding communities.</p> <ul style="list-style-type: none"> • Ensuring proposals demonstrate that inert waste cannot be managed at a higher level of the waste hierarchy will minimise inert waste recovery schemes and their potential impact on communities • Ensuring that the quantity of waste is the minimum required in any given scheme and consideration is given to alternative solutions which would not involve the importation of waste will minimise any traffic and transport impacts to communities <p>Ensuring that there will be no unacceptable adverse impacts on the amenity of local communities is likely to ensure that permitted proposals can mitigate any</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							impacts during the 'other recovery' of inert waste to land (e.g. noise, traffic etc) and the end results of recovery will be acceptable (e.g. they will not have an unacceptable impact such as through visual intrusion, visual dominance, loss of light etc)	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	No clear link.	-
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Probable	Countywide	Direct and indirect effects. Potential for permanent effects	As for SA objective 2, the criteria which contribute towards safeguarding communities, also contribute towards protecting health and wellbeing whilst recovery is taking place and post recovery of inert waste.	-
5. To reduce the need to travel and promote use of sustainable transport options	✓	✓	✓	Probable	Countywide	Direct and indirect temporary effects.	Criteria within the policy will contribute directly and indirectly towards reducing the need to travel. <ul style="list-style-type: none"> Ensuring that the quantity of waste is the minimum required in any given scheme and consideration is given to alternative solutions which would not involve the importation 	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							of waste will minimise transportation requirements Ensuring that there will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities is also likely to ensure that permitted proposals can be delivered without significant traffic implications.	
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link.	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Possible	Countywide	Direct and potential for permanent effects	The measures included within the policy regarding benefits and specifically those to agriculture may contribute positively to the rural economy.	-
8. To reduce the causes of climate change	✓	✓	✓	Probable	Countywide	Direct and indirect and effects. Potential for Permanent Effects	Criteria within the policy which requires proposals to demonstrate that they cannot be managed at a higher level of the waste hierarchy and those mentioned against SA objective 5 which contribute directly or indirectly to reducing the need to travel all serve to minimise greenhouse gas emissions from waste management	-
9. To respond and enable adaptation to the inevitable impacts of	✓	✓	✓	Probable	Countywide	Direct and Potential for Permanent Effects	Criteria within the policy relating to the need for proposals to demonstrate significant and genuine agricultural / ecological benefits of proposals and that there will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities are	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
climate change							likely to ensure that any changes to natural topography as a result of inert waste recovery do not adversely affect water flow and drainage, thereby increasing the risk of localised flooding.	
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and the achievement of genuine, significant ecological benefits are likely to ensure that areas of high ecological value are avoided, impacts of schemes to biodiversity as they are being undertaken can be mitigated and that resulting benefits outweigh harm.	-
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Possible	Countywide	Direct Permanent Effects	Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and the achievement of genuine, significant agricultural or ecological benefits will contribute towards protecting County Durham's natural topography and are likely to ensure that areas of high landscape value are avoided and the landscape and visual impacts of inert waste recovery schemes can be mitigated.	-
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and the achievement of genuine, significant agricultural or ecological benefits will contribute towards protecting County Durham's historic environment and are	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							likely to ensure that substantial harm to or loss of heritage assets are avoided and that the impacts of any changes to natural topography on the setting of assets can be mitigated.	
13. To protect and improve air, water and soil resources	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and the achievement of genuine, significant agricultural benefits may improve agricultural land quality and is likely to ensure avoidance of adverse impacts to hydrological systems and surface or groundwater quality. Measures discussed against SA objective 5 which contribute towards reducing the transportation of inert waste will also contribute positively to minimising vehicle emissions to air.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>The policy is directly compatible with the SA objective as it sets the parameters for the 'other recovery' of inert waste whilst also requiring proposals to demonstrate that the waste which is to be used cannot be managed at a higher level of the waste hierarchy and represents a genuine recovery scheme as opposed to disposal. However, as drafted the supporting text of the policy refers to the potential for recovery schemes to include the use of inert waste for landfill sites cover or final mineral site restoration but omits this from the policy wording. Only 'other recovery' proposals which benefit agriculture, ecology or civil engineering options are included. It is therefore suggested that the scope of the policy and the types of recovery which are considered is expanded upon.</p> <p>In addition, whilst criteria requiring the consideration of alternative solutions which would not require the importation and use of waste is likely to contribute towards reducing the need to travel i.e. by making the best use of onsite materials instead, this should perhaps be applied specifically to mineral site / borrow pit restoration and not in a wider context. This is because the main purpose and benefit of the recovery of inert waste is that it substitutes primary materials which would have otherwise been used, thereby contributing to material and resource efficiency. The policy wording could be amended to address this.</p>	<p>ENV1 – Amend policy wording as follows or similar:</p> <p>2a) The objective of the proposal is land treatment which would result in a genuine benefit to agriculture or ecological improvement which is significant and not a secondary benefit of the disposal of waste and can outweigh harm including that caused to local landscape character and topography, ecology or other valued characteristics, or an engineering benefit which can be genuinely needed for specific purpose; or</p> <p>2b) The proposal constitutes a genuine 'other recovery' operation and either provides final landfill site cover or is essential to deliver a high standard of mineral site or borrow pit restoration which cannot be achieved by making the best use of onsite materials.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	?	?	?	Uncertain	-	-	As mentioned against SA objective 14 in certain circumstances it may be necessary to import waste to achieve a high standard of mineral site restoration, notwithstanding that the use of imported waste should not be promoted over onsite material. The policy does not directly refer to this and therefore effects against this SA objective are uncertain.	ENV2 – as for ENV1

Table C18: Policy MW17 Inert Waste Disposal via Landfill

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	0	✓	✓	Probable	Countywide	Direct and indirect effects. Potential for permanent	No short term effects are predicted as further disposal capacity is required towards the end of the Plan period. Several criteria within the policy will contribute directly and indirectly towards safeguarding communities.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
						effects (on restoration of sites)	<ul style="list-style-type: none"> • Ensuring proposals demonstrate that inert waste cannot be managed at a higher level of the waste hierarchy will minimise inert waste landfill schemes and their potential impact on communities • Demonstrating that the capacity cannot be met by existing (or allocated) inert landfill sites and the restoration of existing permitted mineral sites (where inert waste is required for this) will also minimise inert waste landfill schemes and their potential impact on communities • Avoiding the creation of excessive capacity will minimise the importation of inert waste and associated haulage impacts to communities • Locating proposals as close as possible to waste arisings will also minimise waste haulage impacts to communities • Ensuring that there will be no unacceptable adverse impacts on the amenity of local communities, along with the requirement for high quality restoration schemes is likely to ensure that permitted proposals can mitigate impacts 	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>during operation (e.g. noise, traffic, light pollution, dust, odour etc) and restoration proposals return the land to its original or better state in respect of safety, security and visual amenity.</p> <p>Resisting landraise proposals unless capacity at existing landfill sites is insufficient will also contribute towards directing waste to pre-existing development which have been found to be acceptable in relation to their impact to communities</p>	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	✓	✓	Possible	Countywide	Direct and temporary effects	Permitting new inert waste disposal capacity which aligns with the policy requirements may contribute towards safeguarding existing employment at County Durham's landfill sites and/or create new employment and associated training opportunities.	-
4. To reduce health inequalities and promote healthy lifestyles	0	✓	✓	Probable	Countywide	Direct and indirect effects. Potential for permanent effects	As for SA objective 2, the criteria which contribute towards safeguarding communities, also contribute towards protecting health and wellbeing.	-
5. To reduce the need to travel and	0	✓	✓	Probable	Countywide	Direct and indirect	Several criteria within the policy will contribute directly and indirectly towards reducing the need to travel including.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
promote use of sustainable transport options						temporary effects.	<ul style="list-style-type: none"> Avoiding the creation of excessive capacity will minimise the importation of inert waste and associated haulage requirements Locating proposals as close as possible to waste arisings will also minimise waste haulage requirements Ensuring that there will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities is also likely to ensure that permitted proposals can be delivered without significant traffic implications. <p>Resisting landraise proposals unless capacity at existing (or allocated) landfill sites is insufficient will contribute towards directing waste to pre-existing development which have been found to be acceptable in relation to their traffic levels.</p>	
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link.	-
7. To develop a sustainable and diverse economy with high levels of employment	0	✓	✓	Possible	Countywide	Direct and temporary effects	Permitting new inert waste disposal capacity which aligns with the policy requirements may contribute towards safeguarding existing employment at County Durham's landfill sites and/or create new employment opportunities.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
8. To reduce the causes of climate change	0	✓	✓	Probable	Countywide	Direct and indirect temporary effects.	<p>Criteria within the policy which requires proposals to demonstrate that they cannot be managed at a higher level of the waste hierarchy and those mentioned against SA objective 5 which contribute directly or indirectly to reducing the need to travel all serve to minimise greenhouse gas emissions from waste management.</p> <p>Please note that inert waste is not chemically or biologically reactive and therefore unlikely to create landfill gas</p>	-
9. To respond and enable adaptation to the inevitable impacts of climate change	0	✓	✓	Probable	Countywide	Direct and Potential for Permanent Effects	Resisting landraise proposals unless capacity at existing landfill sites is insufficient will minimise the creation of landforms above ground which can adversely affect water flow and drainage, thereby increasing the risk of localised flooding.	-
10. To protect and enhance biodiversity and geodiversity	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Resisting proposals which cannot be managed at a higher level of the waste hierarchy or be accommodated by existing (or allocated) inert landfill sites or by mineral restoration schemes will minimise the number of new landfill or landraise schemes in County Durham and their associated impacts to biodiversity and geodiversity.</p> <p>Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and that they include a high quality restoration scheme which enhances the natural environment is likely to ensure that areas of high</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							ecological value are avoided, impacts of the operation of the site to biodiversity can be mitigated and that resulting restoration benefits outweigh harm.	
11. To protect and enhance the quality and character of landscape and townscape	0	✓	✓	Possible	Countywide	Direct and potential for Permanent Effects	<p>Resisting proposals which cannot be managed at a higher level of the waste hierarchy or be accommodated by existing (or allocated) inert landfill sites or by mineral restoration schemes will minimise the number of new landfill or landraise schemes in County Durham and their associated impacts to landscape character and quality. Ensuring that landraise schemes are not normally permitted will also further minimise the creation of unnatural landforms and their impact on topography.</p> <p>Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and that they include a high quality restoration scheme which enhances the natural environment is likely to ensure that areas of high landscape value are avoided, the landscape and visual impacts of operating the site can be mitigated and that landscape quality is enhanced over and above its original state on restoration.</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
12. To protect and enhance cultural heritage & the historic environment	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Resisting proposals which cannot be managed at a higher level of the waste hierarchy or be accommodated by existing (or allocated) inert landfill sites or by mineral restoration schemes will minimise the number of new landfill or landraise schemes in County Durham and their potential impacts to cultural heritage and the historic environment. Ensuring that landraise schemes are not normally permitted will also further minimise the creation of unnatural landforms and their impact on the ability to read historic landscapes such as registered battlefields for example. Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and that they include a high-quality restoration scheme which enhances the natural environment will contribute towards protecting County Durham's historic environment and is likely to ensure that substantial harm to or loss of heritage assets are avoided and that the impacts of any changes to natural topography on the setting of assets can be mitigated.	-
13. To protect and improve air, water and soil resources	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Resisting proposals which cannot be managed at a higher level of the waste hierarchy or be accommodated by existing (or allocated) inert landfill sites or by mineral restoration schemes will minimise the number of new landfill or landraise schemes in County Durham and their	ENV1 – Include the following wording, or similar within the policy or supporting text: When submitting proposals, due regard should be given to the Environment Agency's Landfill Technical Guidance:

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>potential impacts to air, water and soil resources</p> <p>Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment is likely to ensure that new landfill capacity is engineered to protect groundwater and prevent any leachate. The Environment Agency has published landfill technical guidance that operators are expected to follow in addition to the conditions set in their Environmental permit. The policy could therefore usefully signpost to this guidance and ensure that when submitting proposals, due regard has been given to it. Measures discussed against SA objective 5 which contribute towards reducing the transportation of inert waste will also contribute positively to minimising vehicle emissions to air associated with the haulage of inert waste and working of landfill sites.</p>	landfill-sector-technical-guidance

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Whilst this policy provides the framework for the consideration of inert waste disposal proposals it requires applicants to first demonstrate that waste cannot be managed at a higher level of the waste hierarchy and that it would not prejudice the restoration of existing permitted mineral sites where inert materials can be recovered for this purpose.</p> <p>The policy also ensures that proposals do not result in the creation of excessive landfill capacity which, despite the landfill tax, could dissuade waste producers from thinking more carefully about managing inert waste at a higher level of the waste hierarchy.</p> <p>However, provision for future waste management in County Durham is based upon providing facilities to deal with the county's own waste arisings (net self-sufficiency) whilst acknowledging the established cross boundary flows of waste which exist between County Durham, adjoining areas and the wider region. County Durham plays an important role in making an appropriate contribution to regional net-sufficiency and the wording of the policy could be amended slightly to reflect this.</p>	<p>ENV2 – Amend policy wording as follows or similar:</p> <p>4. The proposal would not result in [Delete 'the creation of excessive'] an over-provision of capacity which could lead to the [Delete 'unnecessary'] excessive importation of inert waste from outside County Durham.</p>
15. To improve the sustainability of minerals extraction and use and reduce	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	The policy ensures that proposals to create new disposal capacity do not prejudice the restoration of existing permitted minerals sites where inert material is required for site restoration.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
adverse impacts on communities and the environment								

Table C19: Policy MW18 Non-Hazardous Landfill

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	✓	✓	✓	Possible	Countywide	Direct and indirect effects. Effects are temporary but have the potential to be long term depending on the operational life of new	Positive medium and longer term effects are predicted as several criteria within the policy will contribute directly and indirectly towards safeguarding communities: <ul style="list-style-type: none"> Ensuring proposals demonstrate that the waste to be disposed of is the residue of a treatment process and cannot be managed at a higher level of the waste hierarchy will minimise non-hazardous landfill schemes and their potential impact on communities 	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
						landfill sites.	<ul style="list-style-type: none"> • In addition, ensuring that the requirements of County Durham Plan policies 47 and 60 are met, will mean that it will also need to be demonstrated that there is a need for the disposal capacity which cannot be met by existing facilities. This will also minimise non-hazardous landfill schemes and their potential impact on communities • Avoiding the creation of excessive capacity will minimise the importation of non-hazardous waste and associated haulage impacts to communities. • Ensuring proposals are supported by a scheme for the long-term management of leachate and landfill gas. <p>Ensuring that there will be no unacceptable adverse impacts on the amenity of local communities, along with the requirement for high quality restoration schemes is likely to ensure that permitted proposals can mitigate impacts during operation (e.g. noise, traffic, light pollution, dust, odour etc) and restoration proposals return the land to its original or better state in respect of safety, security and visual amenity.</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
3. To improve education, training and life-long learning, and maintain a healthy labour market	✓	✓	✓	Possible	Countywide	Direct and temporary effects Effects are temporary but have the potential to be long term depending on the operational life of new landfill sites.	Permitting new non-hazardous landfill capacity which aligns with the policy requirements may contribute towards creating new employment and associated training opportunities.	-
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Possible	Countywide	Direct and indirect effects. Effects are temporary but have the potential to be long term depending on the operational life of new landfill sites.	As for SA objective 2, the criteria which contribute towards safeguarding communities, also contributes towards protecting health and wellbeing. Specifically, ensuring that proposals are supported by a scheme for the long-term management of leachate and landfill gas will help to protect drinking water and minimise odours.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
5. To reduce the need to travel and promote use of sustainable transport options	✓	✓	✓	Possible	Countywide and North East region	Direct and indirect temporary effects.	<p>Several criteria within the policy will contribute directly and indirectly towards minimising the transportation of waste:</p> <ul style="list-style-type: none"> Reference to the requirements of County Durham Plan Policy 60 take into account the need to manage waste streams as near as possible to their production Avoiding the creation of excessive capacity will minimise the importation of non-hazardous waste and associated haulage requirements <p>Ensuring that there will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities is also likely to ensure that permitted proposals can be delivered without significant traffic implications.</p>	-
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link.	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Possible	Countywide	Direct and temporary effects	Permitting new non-hazardous landfill capacity which aligns with the policy requirements may contribute towards creating new employment opportunities.	-
8. To reduce the causes of	✓/x	✓/x	✓/x	Possible	Countywide	Direct and indirect	A number of criteria within the policy contribute towards minimising greenhouse gas emissions from waste management	ENV1: Suggest amending policy wording as follows or similar:

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
climate change						permanent effects.	<p>including; the requirement to demonstrate that the waste to be disposed of is the residue of a treatment process and cannot be managed at a higher level of the waste hierarchy; those mentioned against SA objective 5 which contribute directly or indirectly to reducing the need to travel and the requirement to ensure maximum practicable recovery of energy from any generated landfill gas.</p> <p>Landfill gas is a mix of methane and carbon dioxide. Methane is a flammable toxic greenhouse gas twenty times more damaging to the climate than carbon dioxide. Instead of going into the atmosphere and becoming a greenhouse gas it can be collected in every landfill and used to produce renewable energy.</p> <p>In recognition that a Climate Emergency has been declared in County Durham and methane is a potent greenhouse gas it is suggested that the wording of the policy is strengthened to require full recovery of landfill gas or where this is technically not possible, maximum practicable recovery with measures to offset residual emissions within County Durham. For example, contributions towards tree planting activity, peatland restoration etc.</p>	3.The proposal is supported by a scheme for the long-term management of leachate and landfill gas which seeks to ensure full recovery of energy from landfill gas or where this is not technically possible , maximum practicable recovery of energy from landfill gas with measures to offset residual emissions within County Durham.
9. To respond and enable adaptation to the inevitable	0	0	0	Minor positive	Countywide	Indirect and Potential for	The requirement to ensure that there will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities is likely to	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
impacts of climate change						Permanent Effects	ensure that proposals do not contribute to flood risk or affect water supply	
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Ensuring waste cannot be managed at a higher level of the waste hierarchy, cannot be dealt with by existing facilities and does not lead to excessive capacity will minimise the number of new non-hazardous landfill schemes in County Durham and their potential impacts to biodiversity and geodiversity. Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and that they include a high quality restoration scheme which enhances the natural environment is likely to ensure that areas of high ecological value are avoided, impacts of the operation of the site to biodiversity can be mitigated and that resulting restoration benefits outweigh harm. The potential for longer term positive effects is therefore predicted.	-
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Possible	Countywide	Direct and potential for Permanent Effects	Ensuring waste cannot be managed at a higher level of the waste hierarchy, cannot be dealt with by existing facilities and does not lead to excessive capacity will minimise the number of new non-hazardous landfill schemes in County Durham and their potential impacts to landscape character and quality. Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and that they	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							include a high quality restoration scheme which enhances the natural environment is likely to ensure that areas of high landscape value are avoided, the landscape and visual impacts of operating the site can be mitigated and that landscape quality is enhanced over and above its original state on restoration. The potential for longer term positive effects is therefore predicted.	
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Ensuring waste cannot be managed at a higher level of the waste hierarchy, cannot be dealt with by existing facilities and does not lead to excessive capacity will minimise the number of new landfill schemes in County Durham and their potential impacts to cultural heritage and the historic environment. However, as mentioned elsewhere the policy could further stipulate that proposals demonstrate there is an established need for further capacity which cannot be met by existing or consented facilities. In addition, the scope of the policy could also cover proposals to extend the time limits of working at existing sites. Whilst this may delay restoration activity, it could minimise the need for new sites in the future.</p> <p>Criteria within the policy relating to the need for proposals to demonstrate that there will be no unacceptable adverse impacts on the environment and that they include a high-quality restoration scheme which enhances the natural environment will contribute towards protecting County Durham's historic environment and is likely</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							to ensure that substantial harm to or loss of heritage assets are avoided and that the impacts to the setting of assets can be mitigated. The potential for longer term positive effects is therefore predicted.	
13. To protect and improve air, water and soil resources	✓/✗	✓/✗	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Ensuring waste cannot be managed at a higher level of the waste hierarchy, cannot be dealt with by existing facilities and does not lead to excessive capacity will minimise the number of new landfill schemes in County Durham and their potential impacts to air, water and soil resources.</p> <p>Requiring proposal to be supported for the long-term management of leachate and landfill gas, including energy recovery from landfill gas will protect surface and groundwater quality and minimise fugitive emissions of landfill gas to air. However, please see comments against SA objective 8 re strengthening this element of the policy.</p> <p>Measures discussed against SA objective 5 which contribute towards reducing the transportation of inert waste will also contribute positively to minimising vehicle emissions to air associated with the haulage of non-hazardous waste and working of landfill sites.</p> <p>The requirement for proposals to include a restoration and aftercare scheme which enhances the natural environment may</p>	ENV2: As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							also contribute toward improving soil quality in the longer term.	
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Whilst this policy provides the framework for the consideration of non-hazardous landfill proposals it requires applicants to first demonstrate that waste cannot be managed at a higher level of the waste hierarchy, cannot be dealt with by existing facilities and does not result in the creation of excessive landfill capacity. However, as mentioned elsewhere the policy could further stipulate that proposals demonstrate there is an established need for further capacity which cannot be met by existing or consented facilities. In addition, the scope of the policy could also cover proposals to extend the time limits of working at existing sites. Whilst this may delay restoration activity, it could also minimise the need for new landfill sites in the future.</p> <p>However, provision for future waste management in County Durham is based upon providing facilities to deal with the county's own waste arisings (net self-sufficiency) whilst acknowledging the established cross boundary flows of waste which exist between County Durham, adjoining areas and the wider region. County Durham plays an important role in making an appropriate contribution to regional net-sufficiency and the wording of the policy could be amended slightly to reflect this.</p>	<p>ENV3 – Amend policy wording as follows or similar:</p> <p>5. The proposal would not result in [Delete 'the creation of excessive'] an over-provision of capacity which could lead to the [Delete 'unnecessary'] excessive importation of non-hazardous waste from outside County Durham.</p>
15. To improve the	0	0	0	-	-	-	No clear link other than proposals for the disposal of non-hazardous waste by landfill	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment							may include the restoration of quarries via landfill.	

Table C20: Policy MW19 Water Resources

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link	-
2. To promote strong secure communities	0	0	0	-	-	-	No clear link	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	-	-	-	No clear link	-
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Probable	Countywide and wider North East region	Direct and Indirect effects. Permanent	<p>The Environment Agency have defined Source Protection Zones (SPZs) for groundwater sources such as wells, boreholes and springs used for public drinking water supply. These zones show the risk of contamination from any activities that might cause pollution in the area. The closer the activity, the greater the risk.</p> <p>The criteria within the policy relating to landfill, landraise and inert waste other recovery proposals i.e. not permitting these within SPZ1 is consistent with the Environment Agency's position statement on the location of landfills and protection of groundwater resources and public drinking water. In terms of inert waste recovery proposals, inside SPZ1 the Environment Agency will only object to proposals for new development of non-landfill waste operations where it believes the operation poses an intrinsic hazard to groundwater. For example, deposit of waste for recovery activities. The policy criteria should therefore contribute towards protecting health and wellbeing, and particularly for</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							residents within Hartlepool who are dependent on County Durham's groundwater for their drinking water supply. Ensuring that a risk assessment is undertaken for landfill and landraise proposals in areas falling outside of SPZ1 will also contribute positively to the protection of water resources and health. The policy can also protect the quality of waterbodies that are used for recreational purposes.	
5. To reduce the need to travel and promote use of sustainable transport options	?	?	?	Uncertain	Countywide and North East	Direct	Effects are uncertain as it is not possible to ascertain whether locating landfills, landraise or inert waste recovery operations away from Source Protection Zones will increase or decrease the need to transport waste from where it arises. The impact of proposals in relation to the transportation of waste will need to be considered on a case by case basis.	-
6. To alleviate deprivation and poverty	0	0	0	-	-	-	No clear link	-
7. To develop a sustainable and diverse economy with high levels of employment	0	0	0	-	-	-	No clear link	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
8. To reduce the causes of climate change	✓/x	✓/x	✓/x	Possible	Countywide	Indirect, Direct & Permanent	<p>Restricting landfill, landraise and inert waste other recovery proposals in any strata where the groundwater provides an important contribution towards river flow or other sensitive receptors is likely to contribute indirectly towards protecting County Durham's peatlands and the important role they play in carbon sequestration.</p> <p>However, as mentioned against SA objective 5, there is uncertainty in relation to potential effects on waste transportation distances and associated greenhouse gas emissions which may increase as a result.</p>	-
9. To respond and enable adaptation to the inevitable impacts of climate change	✓	✓	✓	Probable	Countywide	Direct & Permanent	The requirement for proposals to demonstrate no unacceptable impacts on water resources on site and within the surrounding area along with detailed hydrological and hydrogeological risk assessments should minimise the risk of surface or groundwater flooding	-
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Probable	Countywide	Direct & Permanent	Ensuring that development which could adversely affect the quality of surface water may help to prevent against nutrient pollution to freshwater habitats. Whilst there may be less instances where minerals and waste development could contribute towards nutrient pollution compared to new housing development for example, the scope of the policy would allow for the nutrient impacts of these proposals falling within the nutrient neutrality catchment area for the	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>Teesmouth and Cleveland Coast Special Protection Area/Ramsar to be considered.</p> <p>Ensuring that minerals and waste proposals protect water bodies throughout exploration, the working life of the site and following final restoration should also contribute towards protecting associated wetland, peatland and riparian habitats and species.</p> <p>Not permitting landfill, landraise or inert waste recovery proposals where long term management would be needed to prevent pollution to any strata where the groundwater provides an important contribution to river flow or other sensitive receptors will also contribute towards protecting the ecological health of water bodies, wetlands and associated species/habitats including those subject to nature conservation designations.</p>	
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Probable	Countywide	Direct & Permanent	<p>Ensuring that minerals and waste proposals protect water bodies throughout exploration, the working life of the site and following final restoration should contribute towards protecting associated wetland, peatland, river corridors etc and their contribution towards County Durham's landscape character.</p> <p>Restricting proposals for landfill, landraise and inert waste recovery proposals in Groundwater Source protection Zone1 should contribute indirectly to protecting the landscape character and quality of the Magnesian Limestone Plateau. Elsewhere,</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							restricting proposals in any strata where the groundwater provides an important contribution towards river flow or other sensitive receptors is likely to contribute indirectly towards protecting the peatlands and landscape character associated with the North Pennines AONB.	
12. To protect and enhance cultural heritage & the historic environment	0	0	0	-	-	-	No clear link	-
13. To protect and improve air, water and soil resources	✓	✓	✓	Probable	Countywide	Direct & Permanent	The policy is directly compatible with the protection of County Durham's water resources from minerals and waste working	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	0	0	0	Possible	Countywide	Direct and Potential for Permanent Effects	In some instances, the need to protect water resources may prevent the recovery of inert waste. Minor negative effects are therefore predicted	This is a residual effect
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Certain	Countywide	Direct & potential for Permanent effects	The policy is compatible with ensuring that minerals development minimises its impact upon water resources both in relation to water resources that are required, prevention of pollution and impacts upon flow rates and run off.	-

Table C21: Policy MW20 Mineral Site Restoration, Landfill and Landraise

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	?	?	?	Uncertain	Countywide	-	Whilst it is understood that the usual location for mineral working and other temporary waste development is away from urban areas, there is uncertainty as to whether after-use proposals could include built development such as housing and business uses. These types of afteruses may be particularly relevant on the occasion where sites are well-related to existing settlements and/or where mineral extraction has supported the remediation of derelict or contaminated land.	SOC1: Clarify the approach to built development after-uses
2. To promote strong secure communities	✓	✓	✓	Probable	Countywide	Direct and Potential for Permanent Effects	As the policy requires proposals to deliver high quality restoration appropriate to the site and its surroundings this is likely to ensure that schemes are compatible with and do not impact upon community amenity on their completion. Ensuring that restoration is carried out at the earliest opportunity and that phased schemes of restoration take place during the operational lifetime of sites where this can reduce impacts may help to minimise the duration and any visual adverse effects of minerals and temporary waste development to communities. The provision of environmental enhancements and other benefits where appropriate as part of after-use proposals may also directly or indirectly benefit communities e.g. the provision of new community woodland etc	SOC2: Meaningful engagement with communities should take place to help inform restoration proposals, the level of aftercare that is needed and appropriate, beneficial afteruses. The following amendment is suggested to the supporting text to reflect this: "To ensure high quality restoration, applicants are therefore always encouraged therefore to discuss their proposals for restoration, after-use, and aftercare with the Council and engage with local communities prior to planning applications being submitted"

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Ensuring that provision is made for the long-term management of areas will also help to secure any community benefit in the longer term and may contribute towards the overall safety and security of the site. In order to ensure that high quality restoration schemes are delivered it will often be essential to ensure that meaningful engagement with local communities takes place.	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	Minor Positive possible	Countywide	Indirect and Potential for Permanent Effects	Minor positive in the event that afteruses provide ie/long learning opportunities e.g. access to nature, heritage etc	-
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Possible	Countywide	Indirect and Potential for Permanent Effects	Afteruses may provide benefits to health and wellbeing where they provide for enhanced public access to green space and informal outdoor recreation for example	-
5. To reduce the need to travel and promote use of sustainable transport options	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Restoration, aftercare and afteruse proposals may provide benefits to sustainable travel where they result in an enhancement to public rights of way or as a minimum re-instate any temporarily stopped or diverted rights of way.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Ensuring the best use of onsite materials in restoration will also help to either avoid in full or minimise the transportation of materials to site for this purpose.	
6. To alleviate deprivation and poverty	✓	✓	✓	Possible	Countywide	Indirect and Potential for Permanent Effects	Afteruses may provide benefits to deprived communities where they contribute towards strategies for local regeneration.	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>Ensuring that provision is made for the long-term management of areas or features where this is required to secure their benefits may help to create employment. The restoration of minerals and temporary waste sites to a high standard, more generally will also contribute towards maintaining County Durham's natural environment and its appeal to the visitor economy.</p> <p>As stated against SA objective 1, further clarification is required in relation to whether afteruses could include built development for business purposes.</p>	ECON1 – As for SOC1
8. To reduce the causes of climate change	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>The process of restoring minerals and temporary waste developments is likely to increase greenhouse gas emissions in the short to medium term, however as stated against SA objective 5, making the best use of onsite materials for this purpose will minimise transportation emissions associated with importing materials. The longer term after-use of sites can also</p>	<p>ENV1: Include reference to the Climate Emergency Response Plan in the supporting text as follows:</p> <p>“In preparing proposals for restoration, after-use and aftercare applicants should consider the characteristics of</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>contribute towards the sequestration of greenhouse gas emissions eg. through tree planting or contribute towards the generation of renewable energy.</p> <p>The links between the after-use of sites and their potential to contribute towards capturing carbon and other greenhouse gas emissions could be further recognised by including reference to the Climate Emergency Response Plan within the supporting text of the policy.</p>	the site and the surrounding land uses and have regard to the requirements of all relevant plans and strategies including but not limited to the County Durham Plan, the County Durham Landscape Strategy, Climate Emergency Response Plan..... ”
9. To respond and enable adaptation to the inevitable impacts of climate change	✓	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	Positive effects are possible where afteruses include the creation of wetland habits which assist in flood alleviation.	-
10. To protect and enhance biodiversity and geodiversity	✓/✗	✓/✗	✗	Possible	Countywide	Direct and Potential for Permanent Effects	<p>The restoration, after-use and aftercare of minerals and waste development provide a fantastic opportunity to contribute towards targets for priority habitat creation, biodiversity net gains and create features of geological interest. The policy recognises that there may be circumstances where it may be appropriate to extend the period for aftercare and maintenance in some circumstances in order to ensure that habitats become established as intended.</p> <p>However, as drafted the policy only requires the provision of environmental enhancements and other benefits ‘where</p>	<p>ENV2: Suggest amending the policy wording as follows or similar:</p> <p>3. Are designed to mitigate the effects of the development in that location and, where appropriate, provide appropriate environmental enhancements and other benefits meeting wider objectives including the delivery of nature recovery networks and other relevant plans and strategies.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							appropriate.' This is considered contrary to County Durham Plan policy 41 which requires net gains for biodiversity to be provided and the Environment Act. It is therefore suggested that the wording of the policy is amended to address this. In addition, whilst the supporting text to the policy recognises that the process of restoring a site may itself have environmental impacts in addition to the effects of the development itself, the requirement to minimise such effects is not included within the policy text which would help to highlight its importance. It may also be beneficial to highlight that schemes should preferably aim to mitigate the effects of development on site or near to site as opposed to elsewhere in County Durham.	ENV3: Suggest amending the policy wording as follows or similar: 7. Are carried out in a way which avoid or minimises harm to acceptable levels.
11. To protect and enhance the quality and character of landscape and townscape	✓/x	✓/x	✓	Possible	Countywide	Direct and Potential for Permanent Effects	The requirement within the policy to ensure that restoration schemes are carried out at the earliest opportunity and are progressive in nature where this can reduce impact is likely to contribute towards minimising the landscape and visual impacts of minerals and temporary waste development as they are worked. The requirement to deliver a high-quality restoration appropriate to the site and its surroundings is also likely to ensure that schemes are compatible with local landscape character. Ensuring that schemes are designed to mitigate the effects of the development are also more likely to ensure that land is reconstructed to its original landform or where it is not	ENV4: As for ENV3

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>possible to recreate the original topography this is integrated well with the surrounding landscape.</p> <p>The provision of environmental enhancements 'where appropriate' may contribute to enhancing the quality and character of the landscape in a way which meets the aims of County Durham's Landscape Strategy. However, these effects are 'possible' only.</p> <p>Whilst the supporting text to the policy recognises that the process of restoring a site may itself have environmental impacts in addition to the effects of the development itself, (e.g. how soil is stored which could be utilised in site restoration) the requirement to minimise such effects is not included within the policy text which would help to highlight its importance.</p> <p>Short and medium term effects therefore depend on implementation, with the potential for positive longer term effects in the event that landscape enhancements are attained.</p>	
12. To protect and enhance cultural heritage & the historic environment	✓/✗	✓/✗	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>The requirement to deliver a high-quality restoration appropriate to the site and its surroundings is likely to ensure that schemes are compatible with the local historic environment and context.</p> <p>The requirement within the policy to ensure that restoration schemes are carried out at the earliest opportunity and are progressive in nature where this can reduce impact may also ensure that the duration of any impact to the setting of heritage assets as a result of mineral</p>	ENV5: As for ENV3

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>working or temporary waste development will be lessened.</p> <p>Beneficial after-uses of sites may include the installation of interpretation in order to improve understanding where archaeological features have been discovered as a result of development, or other enhancement to heritage assets but this is only 'possible.'</p> <p>Whilst the supporting text to the policy recognises that the process of restoring a site may itself have environmental impacts in addition to the effects of the development itself, (e.g. restoration blasting could potentially damage undiscovered archaeological features) the requirement to minimise such effects is not included within the policy text which would help to highlight its importance.</p> <p>Short and medium term effects therefore depend on implementation, with the potential for positive longer term effects.</p>	
13. To protect and improve air, water and soil resources	✓/x	✓/x	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>The requirement to make the best use of onsite materials for restoration materials will contribute towards minimising the haulage of materials to site thereby minimising emissions to air. In addition, this requirement should also ensure that soils are conserved and managed properly throughout the operational lifetime of the development. The requirement for site restoration to be carried out at the earliest opportunity and to be progressive in nature may also help to ensure that soil quality does not deteriorate to the extent that</p>	ENV6: As for ENV3

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>agricultural land cannot be restored to at least its original quality. However, whilst the supporting text to the policy recognises that the process of restoring a site may itself have environmental impacts in addition to the effects of the development itself, the requirement to minimise such effects is not included within the policy text which would help to highlight its importance and may contribute further to the protection of air, water and soil resources. In addition, the delivery of environmental enhancements and afteruses need to be appropriate to ensure that they do not unintentionally cause harm or conflict with the achievement of other environmental objectives such as the protection of water quality and quantitative status. Short and medium term effects therefore depend on implementation, with the potential for positive longer term effects in the event that restoration and after-use leads to an improvement to original soil quality.</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Certain	Countywide	Direct and Potential for Permanent Effects	Ensuring that the best use of onsite materials is made for restoration purposes is directly compatible with making the efficient use of materials. Ensuring that reliance on imported waste is restricted to certain circumstance should also contribute to the management of inert waste higher up the waste hierarchy.	-
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓/✗	✓/✗	✓/✗	Possible	Countywide	Direct and Potential for Permanent Effects	There are many aspects to the policy as drafted which contribute positively to the longer term sustainability of minerals development. However, this SA has made recommendations which could further strengthen the policy in relation to ensuring effective engagement with communities, protecting the environment and ensuring that the policy does not inadvertently contradict existing standards in relation to the achievement of biodiversity net gain.	As for all mitigation measures above

Table C22: Policy MW21 Site specific allocation at Thrislington West Quarry

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	Minor positive	Countywide and North East region	Indirect Temporary but long term-linked to the working of permitted reserves	Minor positive. Basal Permian Sands in County Durham are mainly worked as a source of building sand which can be used in the construction of new homes.	-
2. To promote strong secure communities	0	0	0	Minor negative effects	South Durham	Direct and temporary	<p>The proposed site allocation, (subject to obtaining planning permission) would enable the extraction of basal Permian sand to continue beyond 2025 which is when the quarry operator reports that permitted reserves would be exhausted and beyond 2030 which is when mineral working at the quarry is scheduled to cease. No short-term effects are predicted as a result.</p> <p>Subject to a more detailed proposal of how the site will be worked the allocation enables the extraction of 5.8 million tonnes of Basal Permian Sand at a rate of between 200,000 and 300,000 tonnes per annum. This is commensurate with the current rate of sand extraction within the quarry so any adverse effects to communities in the mid to longer term may</p>	N/A – Extending the operational life of the quarry is a residual effect

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>not increase over and above existing. However, as the allocation extends the operational life of the quarry to 2045 the potential for minor negative effects are predicted.</p> <p>Access to the existing quarry site is off the C69, opposite to the main processing plant located east of the East Coast Mainline and west of the A1(M) highway. Ensuring that this access is used will ensure that access is not within close proximity to residential properties and is a relatively secure access point with little adverse impacts on the community. The Quarry uses well established haulage routes, with the majority of HGV vehicle movements using the A1(M).</p> <p>The nearest properties are located approximately 250m north of the site, in Cornforth. The residential properties in Mainsforth are approximately 900m to the south, and there are no residential properties east or west prior to the A1(M) and East Coast Mainline respectively.</p> <p>The use of existing processing, storage facilities and infrastructure will also ensure effects to communities do not increase over and above existing levels.</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	✓	✓	Probable	South Durham	Indirect and Temporary	The proposal would safeguard existing employment at the site until at least 2045 and would lead to indirect training opportunities which are linked to employment up until this point. Should the extraction of minerals continue beyond 2045 then this would have a continued effect on education, training and employment	-
4. To reduce health inequalities and promote healthy lifestyles	0	?	?	Uncertain	South Durham	Direct and Temporary	The proposed allocation is an existing quarry which is in existing operation. Whilst it is likely that sand can be extracted from the proposed area within the void without any significant impacts to health and wellbeing (e.g. as a result of dust, noise etc) on nearby receptors, further detailed assessments would be required to support this at the planning application stage.	SOC1 – Detailed assessments on the impact of working the site on human health and wellbeing will be required to inform the planning decision.
5. To reduce the need to travel and promote use of sustainable transport options	0	✓	✓	Possible	South Durham	Direct and Temporary	Whilst allocating the proposed sand extraction area at Thrislington West Quarry would extend the operational life of the quarry and associated haulage requirements the use of the existing rail connection to the site via the processing plant to the west of the C69 provides a sustainable transport option associated with working the site.	-
6. To alleviate deprivation and poverty	0	✓	✓	Possible	South Durham	Indirect and Temporary	The proposals site falls within the Bishop Middleham and Cornforth Ward. Using the Index of Deprivation, some of the proposed extraction areas falls within the West Cornforth Lower Super Output Area (LSOA) which is one of the most deprived in the County. The other half of the site	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							falling in the Bishop Middleham LSOA which is one of the least deprived in the County. The nearest residential populations which will help make up the employment catchment are Cornforth, West Cornforth in the West Cornforth LSOA and Ferryhill, which falls within the Ferryhill South and Station LSOA which also has a high level of deprivation in the Index of Deprivation. The continued use of the quarry for mineral extraction may help to provide secure medium and long term employment opportunities in those area of deprivation.	
7. To develop a sustainable and diverse economy with high levels of employment	0	✓	✓	Possible	Countywide	Direct and Temporary	Allocating the proposed sand extraction area at Thrislington West Quarry would extend the operational life of the quarry, thereby contributing to safeguarding existing employment opportunities and potentially creating new jobs in the medium and longer term.	-
8. To reduce the causes of climate change	0	×	×	Certain	Countywide	Direct and Potential for Permanent Effects	There are a number of advantages to allocating Thrislington West Quarry in respect of reducing the causes of climate change. These are: <ul style="list-style-type: none"> • There would be no need to remove overlain material to access the sand which could increase the emissions associated with extraction; and • There are opportunities to make use of existing rail connections to the site to minimise emissions associated with transport 	N/A – this is a residual effect

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							However, negative effects are predicted overall as allocating the proposed sand extraction area extends the operational life of the quarry and will continue the greenhouse gas emissions associated with its working.	
9. To respond and enable adaptation to the inevitable impacts of climate change	0	?	?	Uncertain	South Durham	Direct and Potential for Permanent Effects	As the Basal Permian Sands forms part of the Principal Aquifer, its extraction would have an impact on the hydrology of the site. There is therefore uncertainty as to what impact deepening the existing void may have on the water table and instances of groundwater flooding. Further, detailed hydrogeological assessment would be required to inform the planning stage and any mitigating measures.	ENV1 – Hydrogeological assessments will be required to inform the planning decision and any associated mitigating measures and conditions.
10. To protect and enhance biodiversity and geodiversity	0	0	✓	Possible	South Durham	Direct and Potential for Permanent Effects	The site is located immediately to the north of Thrislington Plantation Site of Special Scientific Interest (SSSI) and Thrislington Special Area of Conservation (SAC). That site is also the location of the Thrislington National Nature Reserve (NNR). The trees within that area of wider biodiversity interest also form part of a Woodland Priority Habitat Network, as do the tree located immediately to the north of the site boundary. The Rough Furze Quarry Local Wildlife Site is also located just to the south of the site alongside the SSSI, SAC and NNR. As the site is an existing working quarry, it is not likely to have any additional adverse	ENV2 - Proposals should be supported by ecological assessments in order to identify the presence or absence of protected/priority species and any associated mitigation measures, including those relating to water attenuation.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>impacts on the biodiversity and geodiversity in the medium to long term. The Habitats Regulations Assessment of the site was also able to screen out any adverse impacts to the integrity of the SAC.</p> <p>In relation to nutrient neutrality and potential indirect impacts to Teesmouth and Cleveland Coast SPA and Ramsar, the allocation lies within the Nutrient Neutrality catchment area. However, it is considered that the allocation can be delivered without causing additional nutrient enriched water to enter the designated site. This is because the site is not agricultural land and there are no nutrient enriched soils within the quarry void to be removed or stockpiled. Therefore there is no risk of nutrients leaching out into surface and groundwater or issues associated with any run-off from soils. It is envisaged that water within the quarry void will be managed as existing within the quarry void. However, as the proposal falls within the catchment information to support any future planning application may need to set out water attenuation measures and run off rates.</p> <p>Proposals should be supported by ecological assessments in order to identify the presence or absence of protected/priority species and any associated mitigation measures. Whilst the working of the area will delay site restoration the need for a high quality restoration and aftercare scheme to</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							accompany proposals may provide opportunities to enhance biodiversity outcomes.	
11. To protect and enhance the quality and character of landscape and townscape	0	0	✓	Possible	South Durham	Direct and Potential for Permanent Effects	<p>The site does not fall within a national or local Landscape Designation Area, but is located in the East Durham Limestone Plateau County Character Area. The site is located within a Landscape Improvement Priority Area, with a wider strategy of 'restore or enhance'.</p> <p>The Council's Landscape section have determined that the site is of low landscape value and low sensitivity to the effects of mineral extraction. The site is also considered to be in poor condition by virtue of it being an operational quarry. However, it is a visually contained site, and its current workings do not have a significant detrimental impact on its surroundings.</p> <p>The proposal would see the workings at the site extended beyond and outside of its current permission and would therefore delay the restoration of the land. However, policy requirements to utilise existing site processing storage, plant and other infrastructure will contribute towards safeguarding landscape character and the requirement to provide a high quality restoration and aftercare scheme to accompany proposals offers the opportunity to restore and enhance the land in line with the designation as a Landscape Improvement Priority Area.</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
12. To protect and enhance cultural heritage & the historic environment	0	0	0	No effect	-	-	<p>The previous SA predicted no effect to heritage assets, predominantly due to the distance of the proposed allocation from such assets.</p> <p>In the interim period, a desk-based Heritage Impact Assessment (HIA) was undertaken by the Council's Heritage team to further consider the potential impact of the proposed site allocation in relation to cultural heritage (designated and non-designated heritage assets). The standard process is to identify all heritage assets within a 2km radius outwards from the site and scheduled monuments and Grade I and Grade II* listed buildings within a 5km radius where heritage and visual impacts could potentially occur.</p> <p>The HIA confirmed that at a radius of 2km there are no identified World Heritage Sites, Protected Wreck Sites, Registered Historic Park and Garden or Registered Battlefields. Within the study area there is 1 Scheduled Monument, and 20 listed buildings. The listed buildings are within Cornforth, Bishop Middleham and Ferryhill settlements. 3 Conservation Areas have been identified, Cornforth, Bishop Middleham and Mainsforth, requiring detailed assessment. Within the immediate surroundings of the subject site there are no known non-designated heritage assets, there is 1 archaeological heritage feature identified within Durham County Councils Historic Environment Record (H.E.R). At a</p>	ENV3 – Further historic and archaeological assessments should be undertaken to support any future planning applications.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>radius of 5km from the subject site, 8 Scheduled Monuments, 2 Grade I and 2 Grade II* listed building were identified.</p> <p>Summary of potential impacts</p> <ul style="list-style-type: none"> • The proposal will have no impact upon the significance (physical fabric) of any of the Scheduled Monuments identified within the 2km and 5km focus zones. This is due to the subject site and the heritage assets being physically divorced. Regarding setting, the impact is identified as being nil and neutral. • The proposal will have no impact upon the significance (physical fabric) of any of the Listed Buildings identified within the 2km and 5km focus zones. This is due to the subject site and the heritage assets being physically divorced. Regarding setting, the distance between the subject site and the heritage asset at grade I, II* and II ranging between c.1.3km to 1.7km, the fact that the proposal is contained within the existing quarry workings visually contained by the landform, and because of the intervening factors of the topography, landscape features, urban infrastructure, and existing built development, would fully restrict intervisibility. 	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<ul style="list-style-type: none"> The proposal will have no direct physical impact on the conservation areas identified nor any element that contributes to their special historic and architectural interest, character, appearance, and significance. This is due to the subject site and the heritage assets being physically divorced the closest conservation area being c.1.3km away from the subject site in the south-east. Regarding setting, the subject site forms part of the wider landscape in which the conservation area is sited. But the contribution it makes is not particularly positive due to being contained within the existing quarry workings. <p>The HIA concluded that the proposed additional extractions would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The impact upon the setting(s) of the heritage assets identified would be nil and neutral.</p> <p>However further historic and archaeological assessment should be undertaken to support any future planning applications.</p>	
13. To protect and improve air,	0	x	x	Probable	South Durham	Direct and Potential for	Air: Allocating the proposed sand extraction area at Thrislington West Quarry would extend the operational life of the	ENV4 – Proposals should be accompanied by a hydrogeological assessment

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
water and soil resources						Permanent Effects	<p>quarry and associated emissions to air. Whilst these are not predicted to increase over and above existing levels, continued mitigation measures would be required to ensure an appropriate dust management strategy is implemented. Further mitigation measures such as HGV wheel washing and sheet covering may also required.</p> <p>Water The site is not within close proximity to a watercourse to impact directly through surface water infiltration and mitigation measures can be implemented to ensure contamination is avoided. However, the allocated area is located on the Magnesian Limestone Principal aquifer and the Environment Agency have identified a high risk of pollution to groundwater in the Magnesian Limestone principal aquifer (Including the Basal Permian Sands) from poor quality water in the underlying Coal Measures. The site also lies in a groundwater nitrate vulnerable zone and the north-eastern extent of the proposed site falls within Groundwater Source Protection Zone (SPZ) 3. The Environment Agency have indicated that SPZ's are likely to be extended around Thrislington Quarry in the next couple of years. Planning applications will need to be supported by hydrogeological assessment and site-specific information to demonstrate that the risks of working the area are acceptable and can be mitigated. As a minimum, it is</p>	<p>and an outline of measures which avoid or minimise air and water pollution to acceptable levels. If unacceptable impacts (individual and cumulative) cannot be avoided, then permission should be refused.</p> <p>In the event that permission can be granted, the loss of part of the principal aquifer would be a residual impact of working the proposed extraction area.</p> <p>ENV5 - In the event that SPZ's are further extended within the allocated area in the future the implications of this will need to be taken into account as part of a review of minerals permissions.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>expected that existing monitoring and mitigation measures in place would be required for any future permissions.</p> <p>Soil: The soilscape is freely draining lime-rich loamy soils. The site is an existing quarry, therefore the restoration of the land following the cessation of mineral working would represent a positive effect however further information is required from the operator regarding proposed extraction details. The farming land adjacent has been assessed to be 3a and 3b and the restoration of the sites gives the opportunity to restore the land and provide an improvement to soil quality.</p>	
14. To reduce waste and encourage the sustainable and efficient use of materials	0	✓	✓	Certain	South Durham	Direct and Temporary	The allocation and working of the area would enable the full recovery and use of materials from site. In addition, the requirement to ensure that no infilling with inert waste is proposed as part of the scheme will contribute towards managing waste at a higher levels of the waste hierarchy.	-
15. To improve the sustainability of minerals extraction	0	✓	✓	Possible	South Durham	Direct and Temporary	Meeting the forecast need for additional sand through the use of an existing, operational quarry, whilst extending its operation duration will help to minimise social and environmental impacts. Policy	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
and use and reduce adverse impacts on communities and the environment							requirements such as ensuring the existing quarry access and facilities are used and that the scheme is accompanied by high quality restoration proposals also contribute towards sustainable mineral development. However, the high risk of pollution to groundwater means the positive impacts against this objective are only considered to be possible.	

Table C23: Policy MW22 Site specific allocation Northern Extension to Crime Rigg Quarry

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	Minor positive	Countywide and North East region	Indirect Temporary but long term-linked to the working of permitted reserves	Minor positive. Basal Permian Sands in County Durham are mainly worked as a source of building sand which can be used in the construction of new homes.	-
2. To promote strong secure communities	X	X	0	Possible	Central Durham	Direct and temporary	The proposed northern extension to Crime Rigg Quarry,(subject to obtaining planning permission) would enable the extraction of overlying magnesian limestone and basal permian sand to continue from this existing quarry, extending its operation life by 18-20 years (circa 2043/2045). Quarrying would start circa 2025 (in the short term) to	SOC1 – Proposals are to be accompanied by a Traffic and Transport Assessment and details of the measures which will be put in place to ensure site security and community safety.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>ensure sufficient sand has been exposed in the extension area to enable extraction to commence immediately upon exhaustion of the current reserves in Crime Rigg Quarry.</p> <p>As the extraction of overlying magnesian limestone in the northern extension would be worked concurrently for a limited period (assumed between 2025- 2029) with the existing quarry, the number of vehicle movements associated with the site is likely to increase in the short and mid term (albeit within levels conditioned by existing planning permissions). Whilst an estimation of vehicle movements has been provided within the M&WDPD Site Assessment document and has concluded that traffic volumes should be safely accommodated on the local highways network this would need to be confirmed by a Transport Assessment.</p> <p>The proposed extension also extends the operational life of the quarry and associated haulage of minerals near to settlements for 18-20 years. Therefore, the potential for adverse effects to communities as a result of increased and sustained HGV movements is predicted over the medium to short term.</p> <p>Minor negative effects are predicted in the longer term as the period of concurrent working will have finished and remaining</p>	Please note that extending the operational life of the quarry is a residual effect

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>reserves will either be exhausted or close to exhaustion by 2043/2045.</p> <p>The requirements within the policy to utilise the existing quarry access and relocate existing site processing storage, plant and other infrastructure to the extension area are likely to contribute towards mitigating effects but Traffic and Transport Assessments will be required to accompany a detailed proposal in order to fully ascertain effects and ensure appropriate avoidance and mitigation measures are established.</p> <p>Further detail on the measures which will be put in place to ensure site security and community safety are also required.</p> <p>The nearest properties are located approximately 0.6km north of the site, (Haswell Moor Farm) and 0.6km south of the site (Hill House Farm). The residential properties in the settlement of Ludworth are approximately 1km to the south east, Residential properties in Sherburn Hill are approximately 1.2km to the north west.</p>	
3. To improve education, training and life-long learning, and maintain a healthy	✓	✓	✓	Probable	Central Durham	Indirect and Temporary	The proposal would safeguard existing employment at the site until circa 2043/2045 and would lead to indirect training opportunities which are linked to employment up until this point. Should the extraction of minerals continue beyond 2045 then this would have a continued effect on education, training and employment	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
labour market								
4. To reduce health inequalities and promote healthy lifestyles	?	?	?	Uncertain	Central Durham	Direct and Temporary	The proposed site allocation lies in a rural area over 900 metres to the east of Sherburn Hill and over 700 metres to the northwest of Ludworth. Haswell Moor Farm lies over 600 metres to the northeast. Until detailed assessment is undertaken in support of any planning application for the site it is not possible to ascertain whether there will be any impact on nearby receptors in respect of noise, emissions to air and vibration to levels which could adversely impact on health. In the longer term, restoration proposals may benefit communities (and health) e.g. if native woodland planted is accessible to the public. However, given that the M&WDPD proposes to allocate further waste infilling at Crime Rigg Quarry, restoration proposals are more likely to be focused towards the creation of a replacement geological SSSI.	SOC3 – Detailed assessments on the impact of working the northern extension both concurrently with the existing quarry and separately on human health and wellbeing will be required to inform the planning decision.
5. To reduce the need to travel and promote use of sustainable	X	X	0	Certain	Central Durham	Direct and Temporary	A northern extension to Crime Rigg Quarry is likely to ensure that new working is served by good access to the A1(M) for onward transportation to markets. In addition, the policy requirement to relocate existing site processing storage, plant and	ENV1 - Proposals are to be accompanied by a Traffic and Transport Assessment. In accordance with County Durham Plan Policy 21 (Delivering Sustainable

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
transport options							<p>other infrastructure to the extension area is likely to minimise the distance travelled associated with the storage and processing of minerals. Whilst the reduction in the distance travelled between the existing and relocated location of such infrastructure is likely to be minimal, there could be a positive cumulative effect in reduced trip distance over the operation life of the extension area.</p> <p>However, negative effects are predicted overall as, as stated against SA objective 2, working of the site is likely to increase vehicle movements over and above existing levels in the short to medium term. In addition, in order to access the basal Permian sand, the overlying magnesian limestone will need to be extracted first. The Local Aggregate Assessment has advised no further provision of magnesian limestone is required in the long term and therefore the working of the northern extension increases HGV movements over and above the working of other sand and gravel resources where overburden removal is not required.</p> <p>Minor negative effects are predicted in the longer term as the period of concurrent working will have finished and remaining reserves will either be exhausted or close to exhaustion by 2043/2045.</p> <p>Please note that no Public Rights of Way (PROW) are directly affected by the proposed extension. The nearest public right of way lies to the south</p>	<p>Transport) and response to the declaration of a Climate Emergency, the applicant should also be encouraged to set out what proportion of associated minerals transportation can be transferred from road to rail.</p> <p>Please note that the increase in vehicle movements associated with the prior extraction of magnesian limestone is a residual effect.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							and east of Haswell Moor Farm.	
6. To alleviate deprivation and poverty	✓	✓	✓	Possible	Central Durham	Indirect and Temporary	The proposed extension is situated within both the Shadforth and Sherburn Ward and Haswell and Shotton Ward. Using the Index of Deprivation, the extension falls within Shadforth Lower Super Output Area (LSOA) which is within the top 20-30% deprived. The continued use of the quarry for mineral extraction may help to provide secure short and medium term employment opportunities in those area of deprivation. Longer term employment opportunities could be related to the restoration of the extension area.	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Certain	Countywide	Direct and Temporary	Allocating the proposed northern extension to Crime Rigg Quarry would extend the operational life of the quarry, thereby prolonging its contribution to the local economy. The northern extension will also contribute to safeguarding existing direct and indirect employment opportunities and potentially create new jobs, predominantly in the short to medium term. Longer term employment opportunities could be related to the restoration and aftercare of the extension area.	-
8. To reduce the causes of climate change	✗	✗	✗	Certain	Countywide	Direct and Potential for Permanent Effects	Negative climate change effects are predicted as: <ul style="list-style-type: none"> Allocating the northern extension area extends the operational life of the quarry and will continue the 	ENV2 – As for ENV1 and planning applications should be supported by an assessment of greenhouse gas emission and an evaluation of their significance against net zero targets.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>greenhouse gas emissions associated with its working;</p> <ul style="list-style-type: none"> Emissions associated with the working of the quarry are likely to increase in the short to medium term due to the need to work the extension concurrently with the existing quarry and possible increased rates of mineral extraction over and above levels in recent years which could also increase haulage related emissions; and Prior removal of overlying magnesian limestone is required in order to access the sand resources. <p>In the longer term, restoration proposals could contribute towards offsetting the emissions generated e.g. if native woodland is planted. However, the opportunities for offsetting emissions through tree planting may be more limited if the restoration needs to focus on providing a replacement geological SSSI because of further waste infilling at Crime Rigg Quarry. As the M&WDPD seeks to allocate further waste infilling at Crime Rigg Quarry it is considered more likely that the future restoration of the northern extension could be focused towards providing a replacement geological SSSI.</p>	<p>please note that emissions associated with extending the operational life of the quarry and the need to remove overburden and work areas concurrently are a residual effect</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Longer term effects are therefore assessed as negative.	
9. To respond and enable adaptation to the inevitable impacts of climate change	?	?	?	Uncertain	Central Durham	Direct and Potential for Permanent Effects	Mineral extraction (magnesian limestone and basal permian sand) would remove some of the principal aquifer and therefore has the potential to affect the qualitative status of groundwater supplies which may be exacerbated by drought conditions. Further, detailed hydrogeological assessment would be required to inform the planning stage and any mitigating measures.	ENV3 – Hydrogeological assessments will be required to inform the planning decision and any associated mitigating measures and conditions. The assessment would also need to take into account the cumulative impacts of minerals working and other activities on the Principal Aquifer.
10. To protect and enhance biodiversity and geodiversity	x	x	✓	Possible	Central Durham	Direct and Potential for Permanent Effects	The site is not overlain by any international, national or local nature conservation designations and is remote from and not connected to European Protected sites. The proposed site allocation also lies outside of the Nutrient Neutrality catchment area within County Durham as defined by Natural England for the protection of Teesmouth and Cleveland Coast SPA and Ramsar. However, the site is adjacent to Crime Rigg Quarry SSSI (designated for its geological importance) and within 1.5km of Sherburn Hill SSSI (one of the few surviving sites on the escarpment supporting semi-natural Magnesian Limestone vegetation). In the event that this site is allocated in the M&WDPD and a planning application is forthcoming, further assessment would be required to determine effects. However, ecological effects may not be unacceptable as Sherburn Hill SSSI is in a 100% favourable condition despite working of the existing quarry which is located	ENV4 - Proposals should be supported by ecological assessments in order to identify the presence or absence of protected/priority species and any associated mitigation measures.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>closer to the SSSI than the proposed extension area. The proposed northern extension is likely to result in the direct loss of the majority of habitat (approx. 9.5 hectares) within the proposed area. However, as the majority of this is arable land it is anticipated to be of low ecological value.</p> <p>Further assessment will be required to determine the significance of loss along with the presence or absence of protected species.</p> <p>The policy requirement that 'planning applications are accompanied by an acceptable scheme of phased working and a high quality restoration and aftercare scheme which seeks to provide biodiversity net gain, enhance and improve ecological linkages to adjacent and nearby designated sites and support coherent ecological networks and provide geodiversity benefits' should contribute to positive longer term effects.</p> <p>Whilst the northern extension area lies outside of the Crime Rigg Quarry SSSI there may be opportunity to restore the extension in a way which exposes and creates features of geodiversity interest. This potential opportunity has since been confirmed by Natural England in their consultation response. The supporting text to the policy recognises that geological features could be created on restoration along with the potential for the northern extension to become the replacement geological SSSI (subject to demonstrating</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							viability) if further waste infilling within the existing Crime Rigg Quarry takes place.	
11. To protect and enhance the quality and character of landscape and townscape	✓/x	✓/x	0	Possible	Central Durham	Direct and Potential for Permanent Effects	<p>A summary of the Landscape and Visual Impact Assessment provided by Durham County Council's Landscape Team of the northern extension in 2018 is provided as follows:</p> <p>The proposed extension lies within the East Durham Limestone Plateau County Character Area and is made up of arable farmland. Durham County Council's Landscape and Arboriculture section have assessed the site as being of low-moderate sensitivity to the effects of quarrying. The site isn't covered by any national or local designations.</p> <p>In terms of visual sensitivity this site has a simple landform with few mature features that would be vulnerable to development. It forms part of a semi-rural character where active and abandoned quarries are common, including the adjacent Crime Rigg.</p> <p>In relation to the effects on the landscape the open agricultural character of the site would be fundamentally altered during site operations. Impacts would depend in part on the extent of extraction, screening and phasing. They would be analogous to the character of operations in the existing quarry to the west. The extent to which the engineered landform was legible in general views would be largely governed by the extraction limit in the northwest corner of the site and the deployment of screening</p>	<p>ENV5 – The advance and preparatory works deemed included within the proposal to minimise landscape and visual impacts will also need to relate to the relocation of existing site processing, storage plant and other infrastructure.</p> <p>Please note that the changes to the natural topography of the northern extension area are a residual effect.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>mounds in the west and north. There would be unlikely to be significant effects on landscape character during the operational period and post restoration other than at the site level. However, the gently sloping topography of the site isn't complex in itself but would be difficult to restore to a natural profile.</p> <p>In summary, the working of reserves in this area would be unlikely to result in significant landscape and visual effects subject to detailed design and particularly in respect of the use of screening landforms.</p> <p>Please note that the draft policy requires that the proposal includes such advance and preparatory works as deemed necessary (such as screening landforms) in order to safeguard landscape and visual impacts. These will also need to take account of measures to screen the re-location of existing site processing, storage, plant and other infrastructure to the extension area.</p> <p>Recognition in the supporting text that a range of attractive geological features and habitats could be developed through site restoration could contribute to longer term landscape enhancement.</p> <p>However, the opportunities for landscape enhancement may be more limited if the restoration needs to focus on providing a replacement geological SSSI because of further waste infilling at Crime Rigg Quarry. As the M&WDPD seeks to allocate further waste infilling at Crime Rigg Quarry it is</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							considered more likely that the future restoration of the northern extension could be focused towards providing a replacement geological SSSI. Longer term landscape and visual effects are therefore assessed as neutral.	
12. To protect and enhance cultural heritage & the historic environment	0	0	0	Neutral	Central Durham	Indirect	<p>The Council has undertaken a Heritage Impact Assessment (HIA) for the Crime Rigg northern extension site (February 2022). The heritage assets that were included within the scope of the assessment were:</p> <ul style="list-style-type: none"> • Ludworth Tower (scheduled monument) • Listed buildings • Shadforth Conservation Area • Key non-designated heritage assets <p>The HIA concludes that the proposed northern quarry extension would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The impact upon the setting(s) of the heritage assets identified would be either nil, or minor with the magnitude of effect neutral. As no harm has been identified those settings would be conserved.</p> <p>A further appraisal of impact will be required to support any future planning application.</p>	ENV6 – Proposals should be accompanied by an appraisal of impact on heritage along with an archaeological evaluation

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							In 2018, the Council's archaeological team also confirmed that the archaeological potential at the site is also likely to be limited. However, through the planning application process any site more than 1ha in size would need evaluation with subsequent mitigation (generally excavation and recording) if anything found	
13. To protect and improve air, water and soil resources	x	x	x	Probable	Central Durham	Direct and Potential for permanent effects in relation to the Principal aquifer	<p>Air: As mentioned against other SA objectives, the working of the proposed northern extension is considered likely to increase vehicle emissions associated with the working and haulage of minerals, and concurrent working of the existing quarry and extension area in the short and medium term. In addition, dust emissions are likely to increase as a result of blasting and further assessment will need to be made of the effects of the development on emissions to air. Appropriate conditions are likely to be required as part of any planning application to ensure dust is suppressed. A dust mitigation strategy may be required.</p> <p>Water: The policy requirement to ensure that no infilling of waste is permitted in the extension area will contribute towards protecting water resources.</p> <p>However, Coalford Beck is adjacent to the site so there is potential for the working of the extension to adversely effect surface water sources. In their consultation response, the Environment Agency also highlighted that the northern extension is</p>	<p>ENV7 – Proposals should be accompanied by a hydrogeological assessment and an outline of measures which avoid or minimise air and water pollution. The assessment would also need to consider the cumulative impacts of minerals working and other activities on the Principal Aquifer. If unacceptable impacts (individual and cumulative) cannot be avoided, then permission should be refused. If permission can be granted, the loss of part of the principal aquifer would be a residual impact of working the proposed extraction area.</p> <p>ENV8 – Further assessment of the impact on surface water resources will be required to support any future planning application along with the identification of suitable</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>close to a pond and that mitigation measures will be required to prevent pollution of the surrounding water environment at every stage of the works.</p> <p>The site lies on the Magnesian Limestone Escarpment which is a principal aquifer and is within groundwater Source Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). The Environment Agency have identified a high risk of pollution to groundwater in the Magnesian Limestone principal aquifer (including the Basal Permian Sands) from poor quality water in the underlying Coal Measures. Planning applications will need to be supported by hydrogeological assessment and site-specific information to demonstrate that the risks of working the area are acceptable and can be mitigated.</p> <p>Soil: The proposed northern extension is grade 3 agricultural land and may therefore be best and most versatile agricultural land depending upon whether it is grade 3a or grade 3b land. Further assessment of the land quality is likely to be required. There will be less opportunity to reinstate the extension area to its original or better agricultural land quality if a replacement geological SSSI needs to be created as part of restoration proposals. Good management of soils will also be required whilst the site is operational.</p>	<p>mitigation measures to prevent pollution.</p> <p>ENV9 - Through the preparation of a planning application an agricultural land classification statement would be required to assess the quality of the agricultural land.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	X	X	✓	Certain	Central Durham	Direct and Temporary	The allocation and working of the area would require the extraction of magnesian limestone where no further provision of this mineral is required. Therefore, the allocation is not considered to be compatible with the efficient use of materials. Longer term effects are assessed as positive against this SA objective however, as the requirement to ensure that no infilling with inert waste is permitted as part of the scheme will contribute towards managing waste at a higher levels of the waste hierarchy.	-
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	X	X	0	Probable	Central Durham	Direct and potential for permanent effects	Whilst the working of the northern extension is likely to have limited impacts upon landscape, heritage and biodiversity it would require the prior extraction of magnesian limestone where no further provision of this mineral is required. In addition to extending the operational life of the quarry this could increase the adverse impacts of HGV's to communities in the short to medium term and impact negatively on groundwater resources. Restoration of the extension and aftercare could contribute to longer term environmental sustainability. However, longer term effects are more likely to be neutral as restoration could be focused towards creating a replacement geological SSSI (i.e.maintaining business as usual).	As for all mitigation measures above

Table C24: Policy MW23 Site Specific allocation Inert Waste Disposal at Crime Rigg Quarry

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	<p>No clear link. The allocation would contribute towards disposing of inert construction and demolition waste associated with the building of new housing (and other infrastructure) that cannot otherwise be recycled or recovered.</p> <p>Please note that no short-term effects are predicted in this SA as the inert waste disposal associated with the allocation would not occur until towards the end of the Plan period.</p>	-
2. To promote strong secure communities (Low level restoration scheme)	0	0	0	<p>No short term impacts</p> <p>Minor Negative Mid and long term impacts</p>	Central Durham	Direct and temporary	<p>The proposed site allocation is a quarry void within the eastern part of the operational area of Crime Rigg Quarry. Current planning permission for the site requires restoration to be completed by the end of 2024 and for this part of the quarry to be restored to a low level so that suitable faces could be left exposed, providing a replacement area of geological SSSI for the western part of the quarry which is designated as SSSI and is being infilled with waste. However, a planning application is being prepared to extend the timescale to reflect the remaining mineral extraction, voidspace and infill rate. Capacity at the site could be exhausted by 2029/30. The operator have advised that there are several practical issues with the approved restoration contours that could be improved by amendment.</p>	<p>SOC1 – Proposals are to be accompanied by a Traffic and Transport Assessment and details of the measures which will be put in place to ensure site security and community safety.</p> <p>Please note that extending the operational life of the quarry is a residual effect</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>The policy provides flexibility and supports proposals for a lower level restoration scheme (please see the SA of the scenario 2 option) and a high level restoration scheme (please see the SA of the scenario 3 option).</p> <p>Potentially the site allocation would enable approximately 200,000 tonnes (133,000 cubic metres) of inert waste to be imported per annum. This is commensurate with the existing scale of inert waste disposal within the quarry so any adverse effects to communities in the mid to longer term may not increase over and above existing</p> <p>However both schemes are predicted to have negative effects as they will extend the operational life of the quarry and associated HGV movements near to settlements (Sherburn Hill, Ludworth and Shadforth) until either 2041 as part of a low level restoration scheme or 2054 as part of high level restoration scheme. This equates to between 17-30 more years beyond the current 2024 restoration date, 12-25 years beyond the anticipated exhaustion date and a further 9-22 years beyond the 2032 timescale that planning is intended to be sought for.</p> <p>Minor negative effects are predicted with a low level restoration scheme. Negative effects are predicted with a high level restoration scheme as it will significantly</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							extend the duration of site operations until the 2050s.	
2. To promote strong secure communities (High level restoration scheme)	0	×	×	No short term impacts Negative Mid and long term impacts	Central Durham	Direct and temporary	As above. Negative effects are predicted with a high level restoration scheme as it will significantly extend the duration of site operations and HGV traffic to communities until the 2050s.	As for SOC1
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	✓	✓	No short term impacts Positive mid and long term impacts	Central Durham	Indirect and Temporary	Positive effects are predicted If a lower level restoration scheme is proposed this could safeguard existing employment for an additional 9 years beyond the timescale that planning is intended to be sought for and could lead to training opportunities which are linked to employment up until this point i.e. 2041 If a high level restoration scheme is proposed this could safeguard existing employment for an additional 22 years beyond the timescale that planning is intended to be sought for and could lead to training opportunities which are linked to employment up until this point i.e. 2054	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
4. To reduce health inequalities and promote healthy lifestyles	0	?	?	No short term impacts Uncertain mid and long term impacts	Central Durham	Direct and Temporary	<p>The area within Crime Rigg quarry where the proposed infilling with inert waste is proposed is within 0.5km of Ludworth, 1.2km east of Sherburn Hill and within 0.6km of residential properties at Churchill Terrace. Given the distances involved, inert waste could potentially be imported without any significant impacts to health and wellbeing (e.g. as a result of dust, noise, odour etc). Further detailed assessments would be required to support this at the planning application stage, including an assessment of cumulative impacts.</p> <p>Criteria within the policy that will contribute towards safeguarding health and wellbeing includes:</p> <ul style="list-style-type: none"> • That the planning application includes any further preparatory works as are deemed necessary. This could include for example, the creation of noise barriers • Existing plant and infrastructure is utilised, minimising the need for new facilities which could affect health and wellbeing through noise, dust etc • That applicants demonstrate that there will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities. <p>Policy MW1, also requires that potential cumulative effects are taken into account.,</p>	SOC2 – Detailed assessments on the impact of infilling the void with inert waste individually and cumulatively with existing minerals and waste operations at Crime Rigg Quarry and within the wider area on human health and wellbeing will be required to inform the planning decision.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Further detailed assessments would be required to support this at the planning application stage.	
5. To reduce the need to travel and promote use of sustainable transport options (Lower level restoration scheme)	0	×	×	No short term impacts Certain mid and long term impacts	Central Durham	Direct and Temporary	Both a lower level restoration scheme and a high level restoration scheme will increase vehicle movements associated with infilling waste at Crime Rigg Quarry and are predicted to have negative effects against this objective. However, a high restoration scheme is predicted to have very negative effects. If a lower level restoration scheme is proposed this will provide capacity for inert waste infilling at Crime Rigg Quarry to 1,541,000 cubic metres net and will therefore increase numbers of trips associated with filling it with inert waste (albeit vehicle numbers may be comparable with levels conditioned by existing planning permissions). Assuming that waste is tipped based on anticipated levels (200,000 tonnes per annum) and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this could result in 8,000 laden vehicle movements per annum (29 in and 29 out) per day from the proposed waste operation. For an additional operational period of 9 years beyond 2032 this could increase the number of trips by 72,000.	ENV1 - Proposals are to be accompanied by a Traffic and Transport Assessment. In accordance with County Durham Plan Policy 21 (Delivering Sustainable Transport) and in response to the declaration of a Climate Emergency, the applicant should also be encouraged to set out what proportion of associated minerals transportation can be transferred from road to rail.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Public Rights of Way (PROW) are unlikely to be affected any more than by present quarry operations, although some mitigation may be required. Criterion b requires that views into the site from public rights of ways are minimised which could help to safeguard their continued use and enjoyment.	
5. To reduce the need to travel and promote use of sustainable transport options (High level restoration scheme)	0	xx	xx	No short term impacts Certain mid and long term impacts	Central Durham	Direct and Temporary	If a high level restoration scheme is proposed this will provide capacity for inert waste infilling at Crime Rigg Quarry to 3,226,000 cubic metres net and will therefore increase numbers of trips associated with filling it with inert waste, over and above a low level restoration scheme (albeit vehicle numbers may be comparable with levels conditioned by existing planning permissions). Assuming that waste is tipped based on anticipated levels (200,000 tonnes per annum) and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this could result in 8,000 laden vehicle movements per annum (29 in and 29 out) per day from the proposed waste operation. For an additional operational period of 22 years beyond 2032 this could increase the number of trips by 176,000. As above re impacts to Public Rights of Way (PROW).	As for ENV1

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
6. To alleviate deprivation and poverty	0	✓	✓	No short term impacts Positive mid term impacts	Central Durham	Indirect and Temporary	The quarry is situated close to a ward within the top 20-30% deprived nationally. The allocation for inert waste disposal at the quarry would contribute towards safeguarding existing employment and potentially create new jobs in close proximity to a deprived part of the county for an additional 9 – 22 years beyond the timescale that planning is intended to be sought for depending on whether either a lower level or high level restoration scheme is proposed.	-
7. To develop a sustainable and diverse economy with high levels of employment (Lower level restoration scheme)	0	✓	✓	No short term impacts Certain mid and long term impacts	Countywide	Direct and Temporary	Both a lower level restoration scheme and a high level restoration scheme are predicted to have positive economic effects. However, a high restoration scheme is predicted to have very positive effects although this is dependant on providing an alternative geological Site of Special Scientific Interest (SSSI) A lower level restoration scheme could extend the operational life of the inert landfilling operations at the quarry until 2041 i.e a total of 12 years and a further 9 years beyond the 2032 timescale that planning is intended to be sought for. This scenario therefore ensures continued inert landfilling operations and safeguards associated employment throughout the plan period and for 6 years beyond this. However, the number of years worked beyond the Plan period would depend on several factors including start date and actual disposal rates. The allocation should	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							provide for both direct and indirect employment associated with disposal of inert waste. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the site allocation.	
7. To develop a sustainable and diverse economy with high levels of employment (High level restoration scheme)	0	✓✓	✓✓	No short term impacts Possible mid and long term impacts	Countywide	Direct and Temporary	A high level restoration scheme involves the complete restoration of the quarry void with inert waste to surrounding land levels, increasing capacity by approximately 3,226,000 cubic metres net. This scheme could extend the operational life of the inert landfilling operations at the quarry until 2054 i.e a total of 25 years and a further 22 years beyond the 2032 timescale that planning is intended to be sought for. This scenario therefore ensures continued inert landfilling operations and safeguards associated employment throughout the plan period (to 2035) and for 19 years beyond this. However, the number of years worked beyond the Plan period would depend on a number of factors including start date and actual disposal rates. The allocation should provide for both direct and indirect employment associated with disposal of inert waste. There would also be opportunities for businesses, including local companies to supply goods and services throughout the life of the site allocation. The deliverability of the economic effects predicted is however highly dependent upon the viability of a northern extension to Crime Rigg	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>becoming the replacement geological SSSI.</p> <p>Criterion d of the policy requires that it can be demonstrated that the northern extension to Crime Rigg Quarry can become the replacement SSSI whilst at the same time demonstrating that comparable special interest features will be exposed during the transition period.</p>	
<p>8. To reduce the causes of climate change</p> <p>(Low level restoration scheme)</p>	0	x	x	Certain mid and long term impacts	Countywide	<p>Direct and Potential for Permanent Effects</p>	<p>Both a low level restoration scheme and a high level restoration scheme will extend the duration of inert waste landfilling activity within Crime Rigg Quarry and associated greenhouse gas emissions. Negative effects are therefore predicted with the potential for very negative medium term effects if a high level restoration scheme is forthcoming.</p> <p>A low level restoration scheme is estimated to incur 72,000 vehicle trips and associated emissions. This option could lock in greenhouse gas emissions associated with inert waste landfilling within the county until 2041. Locally a target has been agreed for the county to be carbon neutral by 2045.</p> <p>If after applying mitigation measures to reduce greenhouse gases, the residual emissions associated with landfilling activity are not offset, these would need to be compensated for by other 'climate positive' activities i.e. Where more carbon is removed than emitted and/or other offsetting activity taking place within the county.</p>	<p>ENV2 – As for ENV1 and planning applications should be supported by an assessment of greenhouse gas emission and an evaluation of their significance against net zero targets.</p> <p>please note that emissions associated with extending the operational life of the quarry are a residual effect</p> <p>If after applying mitigation measures to reduce greenhouse gases, the residual emissions associated with landfilling activity are not offset, these would need to be compensated for by other 'climate positive' activities i.e. Where more carbon is removed than emitted and/or other offsetting activity taking place within the county. This will need to be monitored.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
8. To reduce the causes of climate change (High level restoration scheme)	0	XX	X	Probable mid and long term impacts	Countywide	Direct and Potential for Permanent Effects	A high level restoration scheme is estimated to incur 168,000 vehicle trips and associated emissions. This option could lock in greenhouse gas emissions associated with inert waste landfilling within the county until 2054 (i.e. 9 years beyond the period that carbon neutrality within the county needs to be achieved). However, in predicting longer term negative effects, the SA recognises that the Government has committed to phasing out new, non zero-emission heavy goods vehicles weighing 26 tonnes and under by 2035, with all new HGV's sold in the UK to be zero emissions by 2040. From 2035 onwards there may therefore be a declining quantity of HGV related emissions as older HGV's are phased out.	As for ENV2
9. To respond and enable adaptation to the inevitable impacts of climate change	0	?	?	Uncertain mid and long term impacts	Central Durham	Direct and Potential for Permanent Effects	The proposed area for inert waste infilling within Crime Rigg Quarry is located on the Magnesian Limestone principal aquifer and infilling with inert waste could potentially affect hydrology and the qualitative status of groundwater supplies which may then be exacerbated by extreme weather events such as drought or intense rainfall. Overall predicted effects are uncertain until further detailed assessment becomes available. The cumulative impact of multiple inert waste operations (along with quarrying activity) is a key issue and will need to be considered through a planning application. The quarry void is situated within Flood Zone 1 and therefore inert waste landfill operations have a low probability of flooding from surface waters.	ENV3 – Hydrogeological assessments will be required to inform the planning decision and any associated mitigating measures and conditions. The assessment would also need to take into account the cumulative impacts of minerals working and other activities on the Principal Aquifer.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							Further, detailed hydrogeological assessment would be required to inform the planning stage and any mitigating measures.	
10. To protect and enhance biodiversity and geodiversity	0	×	✓	Possible longer term impacts	Central Durham	Direct and Potential for Permanent Effects	<p>Crime Rigg Quarry is situated within Crime Rigg Quarry Site of Special Scientific Interest (SSSI). The SSSI has been identified as of national importance in the Geological Conservation Review. The key risk to the SSSI from infilling with waste would be the concealment of existing exposed faces.</p> <p>The contours for the low level restoration within the eastern void would fall to the 'toe' of the northern quarry wall and should protect the integrity of Crime Rigg Quarry SSSI. However, the presence of notable Schedule 1 listed species at the quarry have been identified and additional infilling with waste compared to the previously approved restoration profile may increase levels of disturbance. Suitable mitigation measures may need to be identified to ensure their continued protection</p> <p>A high level restoration scheme would result in the burial of the SSSI and potential loss of habitat for protected species. These impacts are unlikely to be avoided and would need to be compensated for. Natural England have advised the Council that if a northern extension to the quarry is worked (as allocated within the Plan), they anticipate</p>	<p>ENV4 - Proposals should be supported by ecological assessments in order to identify the presence or absence of protected/priority species and any associated mitigation measures.</p> <p>Mitigation measures may also be needed to ensure disturbance levels to protected species can be avoided or minimised to acceptable levels.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>that the geological exposures within this extension area could potentially be comparable with the existing SSSI. Criterion d of the policy would require a high level restoration scheme to demonstrate that the northern extension to Crime Rigg Quarry can become the replacement SSSI whilst demonstrating that comparable special interest features will be exposed during the transition period. This requirement provides comfort that if a high level restoration scheme is forthcoming, it will not be permitted if compensation cannot be achieved. Negative effects as opposed to very negative effects are therefore predicted.</p> <p>The policy requirement that 'planning applications are accompanied by an acceptable scheme of phased disposal and a high quality restoration and aftercare scheme which delivers a range of appropriate environmental enhancements including but not limited to biodiversity net gain which enhances and improves ecological linkages to designated sites and supports the coherence of ecological networks, whilst also supporting the delivery of the Local Nature Recovery Strategy is likely to contribute to positive longer term effects, compared to the existing approved restoration. It is recognised that restoring the quarry to either a lower level or high level restoration scheme provides greater opportunities for the creation of a range of habitats with a</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							high ecological value compared to the existing approved restoration. A high level restoration scheme would provide the greatest benefits and criterion e of the policy requires that disposal is phased with restoration. However, it would take approximately 13 more years to complete restoration compared to a lower level scheme.	
11. To protect and enhance the quality and character of landscape and townscape	0	✓/x	✓	Possible mid and longer term impacts	Central Durham	Direct and Potential for Permanent Effects	<p>The allocation is not located within a local or nationally designated landscape. The site lies within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'enhance'. The landscape assessment of the site has advised that the importation of waste would be unlikely to result in significant landscape and visual effects subject to detailed design. The policy requires that the planning application includes any further preparatory works as are deemed necessary to safeguard the local landscape.</p> <p>Both a lower and high level restoration scheme could provide further benefits to landscape character and quality than the existing approved restoration as the highest level of landscape mitigation is likely to arise from restoration to something close to original levels and to an enhanced agricultural value with a high nature conservation value: limestone grassland, native woodland and species rich hedges.</p>	ENV5 - proposals should be supported by a detailed appraisal of impact on landscape and visual impact.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							A high level restoration is therefore likely to provide the greater benefits and criterion e of the policy requires that disposal is phased with restoration. However, it would take approximately 13 more years to complete restoration compared to a lower level scheme.	
12. To protect and enhance cultural heritage & the historic environment	0	0	0	Neutral mid and longer term impacts	Central Durham	Indirect	<p>The Council has undertaken a Heritage Impact Assessment (HIA) for Crime Rigg Quarry and inert waste disposal (February 2022). The allocation is not located within a Conservation Area and will have no direct impact on heritage assets. The Heritage Impact Assessment undertaken of Crime Rigg Quarry concluded that the impact on the setting of a scheduled monument (Shadforth Tower), listed buildings and Shadforth Conservation Area would be either nil or neutral. As an operational quarry void, the proposed scenarios would have no archaeological potential.</p> <p>A further appraisal of impact will be required to support any future planning application.</p>	ENV6 – Proposals should be accompanied by an appraisal of impact on heritage
13. To protect and improve air, water and soil resources	0	✓/✗	✓/✗	Probable mid term impacts (air) and possible longer term impacts (water)	Central Durham	Direct and Potential for permanent effects in relation to the Principal aquifer	Air: Both a lower level restoration scheme and a high level restoration scheme will increase the level of inert waste imported to site compared to the existing approved restoration. This has the potential to increase dust arising and vehicle emissions. A high level restoration is likely to increase emissions by the most as requires the most infilling.	ENV7 – Proposals should be accompanied by a hydrogeological assessment and an outline of measures which avoid or minimise air and water pollution. The assessment would also need to consider the cumulative impacts of disposal and minerals working and other activities on the Principal

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>Water: Situated on the Magnesian Limestone Escarpment which is a principal aquifer and is fully situated within groundwater Source Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). High risk of pollution to groundwater. However, no dewatering is undertaken within the current quarry and the operator have advised that the base of the current sand extraction and inert landfill lies above the water table. In addition, infilling with inert waste compared to other waste types minimises risk of groundwater pollution. When submitting proposals due regard should be given to the Environment Agency's Landfill Technical Guidance: Environmental Permitting Landfill Sector Technical Guidance Planning applications will need to be supported by hydrogeological assessment and site-specific information to demonstrate that the risks of working the area are acceptable and can be mitigated.</p> <p>Soil: As a quarry void there is no agricultural land that could be affected. Restoration of the site through the use of inert waste could compensate for the loss of agricultural land due to mineral working.</p>	Aquifer. If unacceptable impacts (individual and cumulative) cannot be avoided, then permission should be refused.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials (Low level restoration scheme)	0	✓	?	Possible	Central Durham	Direct and Temporary	<p>The SA recognises that the allocation is to provide disposal capacity for inert waste that cannot be recycled or recovered further, although its use in the restoration of mineral sites may help to conserve primary resources such as soils which could otherwise be used for this purpose.</p> <p>The allocation is discussed in terms of how it contributes towards the longer term need for further inert waste disposal capacity beyond 2032. The capacity gap was identified by the County Durham Plan as 3,682,800 cubic metres to 2035. Void space at Bishop Middleham Quarry and Old Quarrington Quarry could collectively provide 5,445,210 cubic metres but there is uncertainty when these void spaces could become available and if this will be within the Plan period. At Bishop Middleham availability is dependent on mineral extraction being completed by 2029. Void space within the phase 5 area at Old Quarrington is dependent on planning permissions being granted to extend the duration of an existing permission and void space within the phase 6 area is only likely to be available following the extraction of permitted limestone in the northern part of the quarry i.e. beyond the Plan period.</p> <p>If a low level restoration scheme is proposed, it would further extend recovery and restoration operations into the eastern quarry void and is estimated by the Council</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>to increase capacity by approximately 1,541,000 cubic metres net.</p> <p>An additional 1,541,000 cubic metres is estimated to provide capacity to 2041. This estimate assumes that deposits will be 200,000 tonnes per annum and even if the rate of disposal increases it will be limited by planning conditions relating to allowable vehicle movements to and from the site.</p> <p>This allocation could therefore contribute towards meeting the identified capacity gap over the Plan period to 2035 but not all of the capacity will be used. If landfilling commences in 2030 at 200,000 tonnes per annum it is estimated that by 2035, 665,000 cubic metres could be utilised leaving a remaining 876,000 cubic metres (or 57%) that could provide capacity for a further 6 years beyond the Plan period.</p> <p>Whilst the capacity gap would need to be reviewed to determine need beyond the Plan period it is considered unlikely that the allocation would result in the creation of excessive landfill provision beyond the Plan period.</p> <p>The policy requirement to utilise existing site plan and other infrastructure also minimise the use of resources and waste associated with its decommissioning.</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials (high level restoration scheme)	0	✓	?	Possible	Central Durham	Direct and Temporary	<p>As above, however if a high level restoration scheme is forthcoming it would result in the complete restoration of the quarry void to surrounding land levels. This is estimated by the Council to increase capacity by approximately 3,226,000 cubic metres (net) and is estimated to provide capacity to 2054.</p> <p>This scenario therefore provides capacity over the Plan period to 2035 but not all of the capacity will be used. If landfilling commences in 2030 at 200,000 tonnes per annum it is estimated that by 2035, 665,000 cubic metres could be utilised leaving a remaining 2,561,000 cubic metres (or 79%) that could provide capacity for a further 19 years beyond the Plan period.</p> <p>Whilst the capacity gap would need to be reviewed to determine need beyond the Plan period there is a higher risk that given the quantity of remaining void space, excessive long term landfill provision could be created if other void space at Bishop Middleham and Old Quarrington also become available over the Plan period.</p> <p>To help address this uncertainty, suggest inclusion of the following criterion to ensure that an assessment of need can be undertaken, taking account of the latest situation at the planning application stage:</p>	<p>ENV8: Suggest inclusion of the following criterion to enable an assessment of need to be undertaken if a high level restoration scheme is proposed. This will allow for account to be taken of the latest situation at the planning application stage:</p> <p>The proposal would not result in an over provision of capacity which would lead to excessive importation of inert waste from outside County Durham.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							The proposal would not result in an over provision of capacity which would lead to excessive importation of inert waste from outside County Durham;	
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	0	x	x	Probable	Central Durham	Direct and potential for permanent effects	The allocation of inert waste disposal activity at Crime Rigg Quarry will contribute towards the restoration of the quarry. However, either a low level or high level restoration scheme will increase the duration of activity at the quarry to communities increase the overall number of vehicle movements, greenhouse gas emissions and potential level of disturbance to protected species. Whilst the policy aims to ensure mitigation for Crime Rigg Quarry SSSI can be achieved, even if an alternative site can be satisfactorily created it may not exactly replicate the existing SSSI.	As for all mitigation measures above

Table C25: Policy MW24 Site Specific allocation Inert Waste Disposal at Cold Knuckle Quarry

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	<p>No clear link. The allocation would contribute towards disposing of inert construction and demolition waste associated with the building of new housing (and other infrastructure) that cannot otherwise be recycled or recovered.</p> <p>Please note that no short term effects are predicted in this SA as the inert waste disposal associated with the allocation would not occur until towards the end of the Plan period.</p>	-
2. To promote strong secure communities	0	0	0	<p>No short term impacts</p> <p>Minor Negative Mid term impacts</p> <p>No long term impacts as infilling is intended to be</p>	Central Durham	Direct and temporary	<p>Cold Knuckle Quarry forms part of a larger quarry known as Old Quarrington and Cold Knuckle Quarry. Inert waste has been imported and landfilled in Old Quarrington quarry for a number of years. The allocation would enable the sale of 0.9 million tonnes of magnesian limestone which would otherwise be extracted and used to achieve the previously approved restoration at Cold Knuckle Quarry. Alternatively, the operator wishes to substitute the magnesian limestone with the importation of 400,000 cubic metres of inert waste for use in the reconstruction of the escarpment face and extend the existing landfill operation at Old Quarrington Quarry into Cold Knuckle Quarry. The permitted mineral extraction</p>	<p>SOC1 – Proposals are to be accompanied by a Traffic and Transport Assessment and details of the measures which will be put in place to ensure site security and community safety.</p> <p>Please note that extending the operational life of the quarry is a residual effect</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
				complete by 2033			and inert fill would be undertaken in a phased manner and is intended to be complete by 2033. The sale of the magnesian limestone which would have otherwise been set aside on site and import of inert waste is likely to increase vehicle movements compared to the original proposal. However, HGV movements would in effect represent a continuation of current operations and the policy requires that the site allocation will be accessed through the existing Old Quarrington Quarry access. Minor negative effects are predicted as it would continue such movements for an additional 2.4 years to communities, the nearest including Old Quarrington, Bowburn and Quarrington Hill.	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	No short term impacts Minor positive mid term impacts No long term impacts as infilling is intended to be complete by 2033	Central Durham	Indirect and Temporary	Minor positive. Infilling the existing quarry void with inert waste would safeguard existing employment for an additional 2.4 years and could lead to training opportunities which are linked to employment up until this point i.e. 2033	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
4. To reduce health inequalities and promote healthy lifestyles	0	?	0	No short term impacts Uncertain mid term impacts No long term impacts as infilling is intended to be complete by 2033	Central Durham	Direct and Temporary	<p>The closest settlements to the quarry are Old Quarrington and Quarrington Hill. The access road to the quarry passes within approximately 200 metres of properties within Old Quarrington. The closest properties to the site are Quarrington Farm approximately 100 metres to the west, properties on Church Street some 150 metres to the southwest, the Heather Lad Inn 20 metres to the east and Cassop Hill some 400 metres to the east. Given that operations are likely to be similar to existing operations taking place within the quarry, are for a relatively short duration and due to distances involved, inert waste could be potentially imported into this part of the quarry without any significant impacts to health and wellbeing (e.g. as a result of dust, noise etc).</p> <p>Criteria within the policy will contribute towards safeguarding health and wellbeing including:</p> <ul style="list-style-type: none"> • That the planning application includes any further preparatory works as are deemed necessary. This could include for example, the creation of noise barriers • Existing plant and infrastructure is utilised, minimising the need for new facilities which could affect health and wellbeing through noise, dust etc • That applicants demonstrate that there will be no unacceptable 	SOC2 – Detailed assessments on the impact of infilling the void with inert waste individually and cumulatively with existing minerals and waste operations at Old Quarrington Quarry and within the wider area on human health and wellbeing will be required to inform the planning decision.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>adverse impacts on the environment, human health or the amenity of local communities.</p> <p>Policy MW1, also requires that potential cumulative effects are taken into account.,</p> <p>Further detailed assessments would be required to support this at the planning application stage.</p>	
5. To reduce the need to travel and promote use of sustainable transport options	0	x	0	<p>No short term impacts</p> <p>Certain mid term impacts</p> <p>No long term impacts as infilling is intended to be complete by 2033</p>	Central Durham	Direct and Temporary	<p>The allocation of Cold Knuckles Quarry requires the transportation of 0.9 million tonnes of magnesian limestone from the site which would have otherwise been set aside and used to achieve the previously approved restoration profile at the quarry. Assuming that waste is tipped based on anticipated levels (200,000 tonnes per annum) and based on vehicle movements occurring 278 days per annum with a maximum load of 25 tonnes this could result in 8,000 laden vehicle movements per annum (29 in and 29 out) per day from the proposed waste operation. For an extended operational period of 2.4 years this could incur 19,200 additional trips. Public Rights of Way (PROW) are unlikely to be affected any more than by present quarry operations, although some mitigation may be required. Criterion b requires that views into the site from public rights of ways are minimised which could help to safeguard their continued use and enjoyment.</p>	ENV1 - Proposals are to be accompanied by a Traffic and Transport Assessment. In accordance with County Durham Plan Policy 21 (Delivering Sustainable Transport) and in response to the declaration of a Climate Emergency, the applicant should also be encouraged to set out what proportion of associated minerals transportation can be transferred from road to rail.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
6. To alleviate deprivation and poverty	0	0	0	No short term impacts Minor positive mid term impacts No long term impacts as infilling is intended to be complete by 2033	Central Durham	Indirect and Temporary	The quarry is situated close to a ward within the top 20-30% deprived nationally. The allocation for inert waste disposal at the quarry would contribute towards safeguarding existing employment and potentially create new jobs in close proximity to a deprived part of the county for an additional 2.4 years	-
7. To develop a sustainable and diverse economy with high levels of employment	0	✓	0	No short term impacts Possible mid and long term impacts	Countywide	Direct and Temporary	Despite there not being a need for further magnesian limestone to be permitted, the allocation would enable the sale of 0.9 million tonnes of magnesian limestone from County Durham that would otherwise be sterilised through its use in site restoration. The provision of further waste disposal capacity within a quarry void adjacent to an existing inert landfill could increase capacity by 400,000 cubic metres net, supporting an estimated additional 2.4 years of related employment. This will contribute to ensuring disposal operations continue at Old Quarrington and Cold Knuckle Quarry throughout the Plan period along with their associated benefits to the local economy.	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
8. To reduce the causes of climate change	0	X	X	Certain mid and probable long term impacts	Countywide	Direct and Potential for Permanent Effects	<p>This allocation substitutes the use of magnesian limestone with the importation of 400,000 cubic metres of inert waste to reconstruct the escarpment face and extend the existing landfill operation at Old Quarrington Quarry into Cold Knuckle Quarry. This is estimated to incur 19,200 vehicle trips and associated emissions and prolong waste disposal activity for a further 2.4 years.</p> <p>If after applying mitigation measures to reduce greenhouse gases, the residual emissions associated with landfilling activity are not offset, these would need to be compensated for by other 'climate positive' activities i.e. Where more carbon is removed than emitted and/or other offsetting activity taking place within the county.</p>	<p>ENV2 – As for ENV1 and planning applications should be supported by an assessment of greenhouse gas emission and an evaluation of their significance against net zero targets.</p> <p>please note that emissions associated with extending the operational life of the quarry are a residual effect</p> <p>If after applying mitigation measures to reduce greenhouse gases, the residual emissions associated with landfilling activity are not offset, these would need to be compensated for by other 'climate positive' activities i.e. Where more carbon is removed than emitted and/or other offsetting activity taking place within the county. This will need to be monitored.</p>
9. To respond and enable adaptation to the inevitable impacts of climate change	0	?	?	Uncertain mid and long term impacts	Central Durham	Direct and Potential for Permanent Effects	<p>The proposed area for inert waste infilling within Cold Knuckles Quarry is located on the Magnesian Limestone principal aquifer and infilling with inert waste could potentially affect hydrology and the qualitative status of groundwater supplies which may then be exacerbated by extreme weather events such as drought or intense rainfall. Overall predicted effects are uncertain until further detailed</p>	<p>ENV3 – Hydrogeological assessments will be required to inform the planning decision and any associated mitigating measures and conditions. The assessment would also need to take into account the cumulative impacts of minerals working and other activities on the Principal Aquifer.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>assessment becomes available. The cumulative impact of multiple inert waste operations (along with quarrying activity) is a key issue and will need to be considered through a planning application. The quarry void is situated within Flood Zone 1 and therefore inert waste landfill operations have a low probability of flooding from surface waters.</p> <p>Further, detailed hydrogeological assessment would be required to inform the planning stage and any mitigating measures.</p>	
10. To protect and enhance biodiversity and geodiversity	0	0	✓	Possible longer term impacts	Central Durham	Direct and Potential for Permanent Effects	<p>Two local biodiversity and geodiversity designations overlie the proposed allocation, these being Old Quarrington Quarry Local Geology Site (LGS) and Quarrington Hill and Coxhoe Bank Local Wildlife Site (LWS). However, the impact to these sites has already been considered and found to be acceptable in the context of the existing permitted operation at the quarry and its restoration. Substituting magnesian limestone for inert waste to achieve the restoration is considered unlikely to cause any additional harm to biodiversity or geodiversity. However, the restoration of the site should as a minimum achieve the same level of benefits to biodiversity as existing proposals that aim to provide biodiversity net gain and support ecological networks.</p> <p>Please note that the proposed allocation is also within 286 metres of Quarrington Hill SSSI (to the south) and 250 metres of</p>	<p>ENV4 - Proposals should be supported by ecological assessments in order to identify the presence or absence of protected/priority species and any associated mitigation measures.</p> <p>The restoration of the site should as a minimum achieve the same level of benefits to biodiversity as existing proposals that aim to provide biodiversity net gain and support ecological networks.</p>

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>Cassop Vale SSSI, Cassop National Nature Reserve and ancient woodland (to the north). These designations will not be impacted directly by the proposal and any indirect effects are not considered likely to cause any additional harm than existing operations and the approved restoration. Neutral effects are therefore predicted.</p> <p>Please note that the proposed allocation falls outside of the Nutrient Neutrality catchment area for the Teesmouth and Cleveland Coast SPA as defined by Natural England. The Habitats Regulations Assessment (HRA) of the M&WDPD has also screened out any likely significant effects to Special Areas of Conservation (SAC) or Special Protection Areas (SPA) linked to the proposal.</p> <p>The policy requirement that 'planning applications are accompanied by an acceptable scheme of phased disposal and a high quality restoration and aftercare scheme which delivers a range of appropriate environmental enhancements including but not limited to biodiversity net gain which enhances and improves ecological linkages to designated sites and supports the coherence of ecological networks, whilst also supporting the delivery of the Local Nature Recovery Strategy may contribute to positive longer term effects, compared to the existing approved restoration.</p>	

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
11. To protect and enhance the quality and character of landscape and townscape	0	0	0	Neutral mid and longer term impacts	Central Durham	Direct and Potential for Permanent Effects	<p>The proposed allocation is not covered by any national or local landscape designations. The site lies partly within an area identified in the County Durham Landscape Strategy (2008) as a Landscape Improvement Priority Area (LIPA) with a strategy of 'restore or enhance' and partly within a Landscape Conservation Priority Area (LCPA) with strategy of 'conserve & restore'. It is considered that the restoration of the site would be likely to be identical or very close to that of the approved scheme with the removal of limestone and its replacement with inert materials undertaken broadly within the balance of cut and fill provided for in the approved scheme. There would be no material effect on the final restoration. Effects are therefore assessed as neutral. It is not considered that further landscape enhancement could be achieved through restoration over and above that which is currently planned.</p> <p>The policy requires that the planning application includes any further preparatory works as are deemed necessary to safeguard the local landscape which also contributes to ensuring neutral effects to landscape quality and character.</p>	ENV5 - proposals should be supported by a detailed appraisal of impact on landscape and visual impact.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
12. To protect and enhance cultural heritage & the historic environment	0	0	0	Neutral mid and longer term impacts	Central Durham	Indirect	<p>The Council has undertaken a Heritage Impact Assessment (HIA) for the Cold Knuckle Quarry and inert waste disposal (February 2022). The allocation is not within 2km of a World Heritage Site, Scheduled Monument, Protected Wreck site, Registered Historic Park and Garden or Registered Battlefield. The Heritage Impacts Assessment undertaken did however assess effects on 1 Grade II listed building, 2 Conservation Areas, 4 Historic Environment Records, non-designated heritage assets and one site included on the local list of historic parks, gardens and designated landscapes.</p> <p>The Heritage Impact Assessment undertaken, concluded that the proposals would not have any direct effect on the significance (physical fabric) of any identified heritage asset. The magnitude of effect upon the setting(s) of the heritage assets has been identified as either nil, or minor with the level of impact neutral. As an operational quarry void, the proposed scenarios would have no archaeological potential.</p> <p>A further appraisal of impact will be required to support any future planning application.</p>	ENV6 – Proposals should be accompanied by an appraisal of impact on heritage
13. To protect and improve air, water and soil resources	0	x	x	Probable mid term impacts (air) and possible longer	Central Durham	Direct and Potential for permanent effects in relation to	<p>Air: This policy will increase vehicle emissions to air as it requires the transportation of 0.9 million tonnes of magnesian limestone from the site which would have otherwise been set aside and used to achieve the previously approved</p>	ENV7 – Proposals should be accompanied by a hydrogeological assessment and an outline of measures which avoid or minimise air and water pollution. The

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
				term impacts (water)		the Principal aquifer	<p>restoration profile at the quarry, along with the importation of waste.</p> <p>Water: Situated on the Magnesian Limestone Escarpment which is a principal aquifer and is fully situated within groundwater Source Protection Zone 3. The site also lies in a groundwater nitrate vulnerable zone (NVZ). High risk of pollution to groundwater. However, no dewatering is undertaken within the current quarry and the operator have advised that the base of the current sand extraction and inert landfill lies above the water table. In addition, infilling with inert waste compared to other waste types minimises risk of groundwater pollution. When submitting proposals due regard should be given to the Environment Agency's Landfill Technical Guidance: Environmental Permitting Landfill Sector Technical Guidance Planning applications will need to be supported by hydrogeological assessment and site-specific information to demonstrate that the risks of working the area are acceptable and can be mitigated.</p> <p>Soil: As a quarry void there is no agricultural land that could be affected. Restoration of the site through the use of inert waste could compensate for the loss of agricultural land due to mineral working but this would occur in any event as part of the existing approved restoration.</p>	assessment would also need to consider the cumulative impacts of disposal and minerals working and other activities on the Principal Aquifer. If unacceptable impacts (individual and cumulative) cannot be avoided, then permission should be refused.

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
14. To reduce waste and encourage the sustainable and efficient use of materials	0	✓	0	Probable mid term impacts No long term impacts as infilling is intended to be complete by 2033	Central Durham	Direct and Temporary	<p>The SA recognises that the allocation is to provide disposal capacity for inert waste that cannot be recycled or recovered further, although its use in the restoration of mineral sites may help to conserve primary resources such as soils which could otherwise be used for this purpose. The allocation is discussed in terms of how it contributes towards the longer term need for further inert waste disposal capacity beyond 2032. The capacity gap was identified by the County Durham Plan as 3,682,800 cubic metres to 2035. Void space at Bishop Middleham Quarry and Old Quarrington Quarry could collectively provide 5,445,210 cubic metres but there is uncertainty when these void spaces could become available and if this will be within the Plan period. At Bishop Middleham availability is dependent on mineral extraction being completed by 2029. Void space within the phase 5 area at Old Quarrington is dependent on planning permissions being granted to extend the duration of an existing permission and void space within the phase 6 area is only likely to be available following the extraction of permitted limestone in the northern part of the quarry i.e. beyond the Plan period.</p> <p>Using inert waste to achieve the restoration of Cold Knuckle quarry avoids the sterilisation of magnesian limestone. Whilst there is no quantitative need for magnesian limestone, the mineral would have been extracted as part of the original approved</p>	-

SA/SEA Object. Number	Short Term Impact	Med Term Impact	Long Term Impact	Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
							<p>restoration and its sale as opposed to use in restoration represents a more efficient use of resources.</p> <p>The allocation is estimated to increase capacity by approximately 400,000 cubic metres (net) and is estimated to provide capacity to 2033 (i.e. within the Plan period only). There is unlikely to be remaining capacity beyond the Plan period and the allocation is not considered likely to result in the creation of excessive landfill provision over the medium term.</p> <p>The policy requirement to utilise existing site plan and other infrastructure also minimise the use of resources and waste associated with its decommissioning.</p>	
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	0	✓	0	Probable mid term effects	Central Durham	Direct and potential for permanent effects	The allocation of inert waste disposal activity at Cold Knuckle Quarry will contribute towards the restoration of the quarry in a way which is anticipated to have minimal impacts on communities and the environment. The allocation also prevents the sterilisation of minerals resources.	As for all mitigation measures above

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