

Durham County Council

Sustainability Appraisal of the Minerals and Waste Policies and Allocations Document

Appendices

September 2021



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Appendix A – Sustainability Appraisal Framework

Sustainability Appraisal Objectives	Criteria: Will the Plan...	Relevant M&WDPD requirements
1. To provide everybody with the opportunity to live in a decent and affordable home	<ul style="list-style-type: none"> • Ensure the requirement for affordable housing is met across a range of tenures? • Decrease the number of vacant properties and properties that don't meet the decent homes standard? • Site new housing in deliverable locations linked to identified need? • Ensure that a mix of housing type and size is available in the county? • Improve energy efficiency and reduce fuel poverty? 	<ul style="list-style-type: none"> • Supply of minerals required to build new homes including affordable homes. • Management of construction and demolition waste linked to new housing provision • Management of householder waste linked to new housing • Safeguarding of resources, sites, facilities and infrastructure relative to housing location /demand.
2. To promote strong, secure communities	<ul style="list-style-type: none"> • Enhance a sense of safety and security? • Deter / prevent crime? • Reduce the adverse impacts of traffic (including HGV's) on communities? • Encourage a sense of community or wider engagement in community activities or local democracy? • Promote mutual understanding of different ethnic and cultural groups? • Help cater for the needs of an ageing population? • Increase cultural awareness through enhancing and promoting the local historic environment? 	<ul style="list-style-type: none"> • Safety and security of sites and infrastructure • Avoiding/minimising haulage impacts of minerals/waste • Accessibility and location of waste facilities to reduce fly tipping incidents • Opportunities for community engagement and involvement in minerals and waste decision making • Community benefits derived as a result of minerals and waste development • Supporting community led waste management schemes • Understanding and responding to the waste management requirements of an ageing population

Sustainability Appraisal Objectives	Criteria: Will the Plan...	Relevant M&WDPD requirements
3. To improve education, training and life-long learning, and maintain a healthy labour market	<ul style="list-style-type: none"> • Increase the quantity or quality of education, training opportunities or facilities? • Improve access to education or training opportunities? • Promote lifelong learning? • Raise educational and employment aspirations? 	<ul style="list-style-type: none"> • Qualification, training and volunteer opportunities as a result of minerals and waste development and management • Awareness raising and behavioural change in relation to resource management and the waste hierarchy
4. To reduce health inequalities and promote healthy lifestyles	<ul style="list-style-type: none"> • Contribute to promotion of healthier lifestyles and healthy leisure opportunities? (e.g. cycling and walking) • Improve access to public open space / multi-functional green infrastructure? • Reduce health inequalities? • Improve access to healthcare? 	<ul style="list-style-type: none"> • Avoiding/minimising the impact of nuisances associated with minerals and waste development such as noise pollution, odour and dust • Impact of sites and facilities on existing green infrastructure and rights of way • Opportunities for the creation of new or enhanced access to recreation and leisure as a result of restoration
5. To reduce the need to travel and promote use of sustainable transport options	<ul style="list-style-type: none"> • Reduce the need for travel / transport (e.g. by ensuring local needs are met locally or by telecommunication)? • Help people to access jobs, services and facilities easily? • Protect / increase the range of shops, services, amenities and employment opportunities in town and village centres? 	<ul style="list-style-type: none"> • Encouraging proximity between minerals and waste sites and processing facilities/markets/sources • Provision and improvement of public access to facilities enabling sustainable waste management • Encouraging more sustainable forms of minerals and waste transportation

Sustainability Appraisal Objectives	Criteria: Will the Plan...	Relevant M&WDPD requirements
	<ul style="list-style-type: none"> • Promote / widen opportunities for 'greener' modes of travel (walking, cycling public or shared transport)? • Ensure development is served by an appropriate level of transport infrastructure including public and sustainable transport networks? • Move freight from road to rail / sea? 	<ul style="list-style-type: none"> • Resources which support the transition to Electric Vehicles
6. To alleviate deprivation and poverty	<ul style="list-style-type: none"> • Help those on lower incomes? • Contribute towards local regeneration initiatives, or benefit areas suffering from economic deprivation? • Improve economic, social and environmental conditions in the most deprived areas and for the most deprived groups? • Improve physical access to jobs? • Help reduce unemployment? • Encourage higher incomes? 	<ul style="list-style-type: none"> • Potential impacts of minerals and waste development on social, economic and environmental conditions in deprived areas • Potential opportunities for restoration of sites to contribute towards addressing legacy issues and/or regeneration initiatives • The safeguarding or creation of jobs in deprived areas
7. To develop a sustainable and diverse economy with high levels of employment	<ul style="list-style-type: none"> • Safeguard employment or create new employment opportunities? • Promote business expansion / development? • Promote growth in key economic sectors? • Encourage clean technologies to locate in the area? • Reduce road congestion and help reduce journey times to key employment sites? • Encourage young people to stay in the area? • Encourage the use of local labour, goods and services? 	<ul style="list-style-type: none"> • Safeguarding and creation of direct and indirect jobs in the minerals and waste sector • Contribution to a green, economic recovery from the Covid 19 pandemic • Contribution that the provision of a steady and adequate supply of mineral resources makes to the local, regional and national economy

Sustainability Appraisal Objectives	Criteria: Will the Plan...	Relevant M&WDPD requirements
	<ul style="list-style-type: none"> • Improve the diversity / resilience of the economy? • Help realise the economic potential of the County's natural and historic assets in a sustainable way? 	<ul style="list-style-type: none"> • Ensuring that County Durham's mineral resources are not needlessly sterilised and that they are conserved and used appropriately • Capturing value from waste streams by creating saleable products from them • Innovation and competitiveness within minerals and waste industry • Long term investment requirements for minerals and waste infrastructure • Rural diversification • Impact of development on key visitor locations • Potential for mineral site restoration to create new visitor attractions
<p>8. To reduce the causes of climate change</p>	<ul style="list-style-type: none"> • Reduce the demand for energy or increase energy efficiency of buildings, transport or industry? • Minimise greenhouse gas emissions from waste management? • Contribute to the development / wider use or renewable energy sources? • Contribute to the absorption of carbon dioxide? 	<ul style="list-style-type: none"> • Reducing emissions from minerals and waste development through use of energy efficient and low and zero carbon design and adoption of efficient plant and processes • Reducing haulage associated emissions (see SA objective 5) • Development which supports the transition to a low carbon future • Locations for development which avoid carbon sinks e.g. peatland and impact on these. • Opportunities through restoration to increase carbon sequestration • Encouraging the recovery of energy from waste

Sustainability Appraisal Objectives	Criteria: Will the Plan...	Relevant M&WDPD requirements
		<ul style="list-style-type: none"> • Enabling increased levels of waste recovery, recycling and composting • Preventing the loss of embodied energy by promoting the use of recycled, recyclable and secondary resources
9. To respond and enable adaptation to the inevitable impacts of climate change	<ul style="list-style-type: none"> • Minimise the risk of / from flooding or coastal erosion? • Help to cope with climate extremes, e.g. design of buildings and urban areas? • Allow for habitats or species of biodiversity importance to adapt to climate change? 	<ul style="list-style-type: none"> • Impact of minerals and waste development on increasing or potentially alleviating flood risk • Ensuring that minerals and waste developments are not susceptible to the effects of climate change and do not hinder adaptation
10. To protect and enhance biodiversity and geodiversity	<ul style="list-style-type: none"> • Protect or enhance internationally designated wildlife / geological sites? • Protect or enhance nationally designated wildlife / geological sites and protected species? • Protect or enhance UK and Durham Biodiversity Action Plan priority habitats and species? • Protect or enhance other areas of local importance for biodiversity or geodiversity (LNR's, CWS, CGS, semi-natural ancient woodland)? • Prevent deterioration and fragmentation of habitat and establish and maintain sustainable habitat networks? • Improve access to or understanding of local biodiversity / geodiversity resources? • Ensure adequate and appropriate mitigation for any biodiversity loss which may occur as a result of development? • Create new areas or sites of biodiversity / geodiversity value? 	<ul style="list-style-type: none"> • Location and effects of minerals and waste development on biodiversity/geodiversity • Potential opportunities for enhancement and net gains through restoration • Potential creation of new areas of geodiversity value through minerals working • Potential spread of invasive species through composting activity • Compatibility with nature recovery plans/projects

Sustainability Appraisal Objectives	Criteria: Will the Plan...	Relevant M&WDPD requirements
11. To protect and enhance the quality and character of landscape and townscape	<ul style="list-style-type: none"> • Protect and enhance designated protected landscape areas (i.e. AONB, Durham Heritage Coast)? • Protect and enhance local landscape character and quality? • Protect and maintain the openness of the green belt? • Ensure that new developments reflect the distinctive character and appearance of the local area? • Encourage good quality design in new development? • Protect and enhance the vitality and viability of the county's town centres and main village centres? • Protect and improve the quality of public areas / discourage fly tipping and reduce litter? • Help regeneration of degraded built environments? 	<ul style="list-style-type: none"> • Location and effects of minerals and waste development to landscape character and quality • Potential opportunities for landscape enhancement on restoration • Contribution that working of traditional building materials make to character • Accessibility and location of waste facilities to reduce fly tipping incidents • Preserving openness of the greenbelt • Co-location of waste facilities with complementary industrial facilities where possible to reduce visual intrusion
12. To protect and enhance cultural heritage & the historic environment	<ul style="list-style-type: none"> • Protect and enhance the character, appearance or setting of designated and non-designated heritage assets? • Reduce the number or severity of designated and non-designated heritage assets at risk? • Protect and enhance locally and regionally important designated and non-designated heritage assets? • Realise the economic and educational potential of designated and non-designated 	<ul style="list-style-type: none"> • Location and effects of minerals and waste development on the historic environment • Industrial heritage and cultural identity of County Durham as a result of minerals working • Potential opportunities to reveal undiscovered archaeological features and improve understanding

Sustainability Appraisal Objectives	Criteria: Will the Plan...	Relevant M&WDPD requirements
	<p>heritage assets and help make them accessible?</p> <ul style="list-style-type: none"> • Recognise the contribution of conserving and enhancing existing buildings and other heritage assets to local distinctiveness, sustainable resource use and climate change mitigation • Ensure the recording and appropriate protection of undiscovered archaeological features in areas of potential development? 	<ul style="list-style-type: none"> • Supply of building and roofing stone for the repair and construction of buildings and structures • Contribution the re-use and restoration of historic buildings makes to waste prevention, reuse, and architectural salvage.
13. To protect and improve air, water and soil resources	<ul style="list-style-type: none"> • Protect and improve local air quality? • Protect and maintain or improve surface & groundwater quality or the physical integrity of aquifers? • Reduce the amount of water used? • Keep water consumption / emission within local carrying capacity limits? • Improve areas of historic land contamination and prevent contamination to new areas? • Encourage the location of development on previously developed land (while taking account of biodiversity value that may be present?) • Minimise the loss of better quality agricultural land to development? • Promote good soil management in land reclamation? 	<ul style="list-style-type: none"> • Reducing emissions to air, including dust from minerals and waste development. • Avoiding pollution of surface and groundwater sources • Addressing legacy issues of mine water pollution • Quantitative status of groundwater and impacts of abstractions/dewatering • Protecting the best and most versatile agricultural land / land restoration proposals • Conserving and enhancing soil resources • Avoiding contamination and opportunities to reduce the amount of derelict, contaminated and degraded land
14. To reduce waste and encourage the sustainable and	<ul style="list-style-type: none"> • Encourage an increase in the reduction, re-use, recycling and recovery of energy from 	<ul style="list-style-type: none"> • The SA objective and more detailed decision-making criteria are directly related to sustainable resources use, waste reduction and developing a circular economy. Commentary against this objective

Sustainability Appraisal Objectives	Criteria: Will the Plan...	Relevant M&WDPD requirements
efficient use of materials	<p>waste (progress away from landfill and up the “waste hierarchy”)?</p> <ul style="list-style-type: none"> • Encourage the use of recycled / reused materials? • Minimise the use of new non-renewable resources? • Reduce the adverse impacts of waste management facilities to acceptable levels? • Encourage the community to take responsibility for reducing its own waste? • Promote the maintenance, sensitive adaptation and re-use of buildings? 	<p>also helps to summarise the effects predicted against all preceding SA objectives in relation to a waste related policy or site assessment.</p>
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	<ul style="list-style-type: none"> • Help meet an identified need for minerals? • Reduce the adverse impacts of minerals processing and extraction to acceptable levels? • Reduce the energy used in minerals extraction, processing and transport? • Ensure the efficient use of minerals resources? • Avoid the sterilisation of economically important mineral resources? • Promote good practice in land reclamation having regard to sustainable after-use appropriate to the locality 	<ul style="list-style-type: none"> • The SA objective and more detailed decision-making criteria are directly related to minerals planning. Commentary against this objective also helps to summarise the effects predicted against all preceding SA objectives in relation to a minerals related policy or site assessment.

Appendix B – Sustainability Appraisal Matrices

Key to Assessment

Sustainability Appraisal Key		
Impact	Likely to have a very positive effect	✓✓
	Likely to have a positive effect	✓
	Minor effect/no effect/ no clear link	0
	Uncertain/ insufficient information on which to determine effect	?
	Likely to have a negative effect	x
	Likely to have a very negative effect	x x
	Could have both positive and negative effects depending on implementation	✓/x
Timescale		
	Short-term (next 5 years)	S
	Medium-term (5-16 years)	M
	Long-term (16 years +)	L
Likelihood of Effect		
	Certain/Probable / Possible/ Uncertain	
Geographic Scale		
	e.g. Regional/ Countywide/ *Settlement Name*/ Local (site specific)	
Type of Effect		
	Permanent/ Temporary/ Direct/ Indirect/ Secondary/ Residual	

Table 1 Policy MW1 General Policy								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	Probable	Local	Temporary	Minor positive impact 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. Policy wording states: Where appropriate, separation distances should be put in place between minerals and waste developments and occupied residential properties or other sensitive receptors. This would safeguard local homes.	-
2. To promote strong secure communities	✓	✓	✓	Probable	Local	Temporary	The policy requires all minerals and waste related development proposals consider the relevance of all criteria in this policy to their proposal as they may be asked to justify why they consider a specific element is not relevant. The policy also seeks to minimise individual and cumulative impacts on local amenities and communities. This will safeguard communities from any cumulative impact of any operations alongside existing operations, not just the individual application.	-

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	Local	Temporary	Policy criteria states: Proposals for minerals and waste development will be required to demonstrate that the proposal will not result in unacceptable adverse impacts on: Human health There is potential for this policy to safeguard health by seeking to minimise and mitigate the individual and cumulative impact of minerals and waste operations.	-
5. To reduce the need to travel and promote use of sustainable transport options	0	0	0	Probable	Local	Temporary	Minor positive impact. Policy wording states: Proposals for minerals and waste development will be required to demonstrate that the proposal will not result in unacceptable adverse impacts on: Traffic, transport and public rights of way, This is elaborated on in the supporting text to cover sustainable transport. There is potential for this policy to safeguard sustainable transport by seeking to minimise and mitigate the individual and cumulative impact of minerals and waste operations.	-
6. To alleviate deprivation and poverty	0	0	0	Probable	Local	Temporary	Whilst there is not a direct link there is the potential minor positive effect.	-

							<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.</p> <p>Policy wording also states that: When determining relevant planning applications, the Council will ensure that developers consider both the potential individual and cumulative impacts of development. 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	0	0	0	Probable	Local	Temporary	<p>Whilst there is not a direct link there is the potential minor positive effect.</p> <p>Policy wording states: Proposals for minerals and waste development will be required to demonstrate that the proposal will not result in unacceptable adverse impacts on:</p> <p>Human health, the amenity of local communities and other sensitive receptors. These sensitive receptors include sensitive businesses.</p> <p>Policy wording also states that Where appropriate, separation distances should be put in place between minerals and</p>	<p>ECON1: The policy could give further clarity regarding businesses. Whilst businesses could be covered by the ‘sensitive receptors’ wording. There is the possibility that some businesses may be missed as they are not considered as ‘sensitive’</p> <p>To ensure that the impact on all businesses are demonstrated, consider adding the wording “the operation of existing businesses”.</p>

							<p>waste developments and occupied residential properties or other sensitive receptors. This will safeguard sensitive businesses, economy and employment.</p> <p>Policy wording also states that: When determining relevant planning applications, the Council will ensure that developers consider both the potential individual and cumulative impacts of development. This will act as a further check to safeguard economy and employment from cumulative impact of operations that individual operations may not have, as well as individual operations.</p>	
8. To reduce the causes of climate change	0	0	0	Probable	Local	Temporary	<p>The policy will have a minor positive effect on climate change. The policy requires all minerals and waste related development proposals consider the relevance of all criteria in this policy to their proposal as they may be asked to justify why they consider a specific element is not relevant.</p> <p>The policy also seeks to minimise individual and cumulative impacts on local amenities and communities.</p> <p>This will minimise any cumulative impact new operations alongside existing operations will have on climate change, not just the impact individual application on its own.</p>	<p>ENV1: Given that the UK has legislated meeting net zero carbon targets by 2050 and County Durham's local Climate Emergency targets reflect this ambition, it will be necessary for the Council to understand what impact minerals and waste development would have on meeting such targets when determining proposals.</p> <p>Consider adding the following criteria:</p> <p>Proposals for minerals and waste development will be required to demonstrate that the proposal will not have unacceptable adverse impacts on....</p>

								...County Durham's ability to transition to a net zero carbon future and adapt to climate change
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	Probable	Local	Temporary	<p>The policy will have a minor positive effect on the adaptation to impacts of climate change climate change.</p> <p>The policy requires all minerals and waste related development proposals consider the relevance of all criteria in this policy to their proposal as they may be asked to justify why they consider a specific element is not relevant.</p> <p>The policy also seeks to minimise individual and cumulative impacts on local amenities and communities.</p> <p>This will minimise any cumulative impact new operations alongside existing operations will have on adaptation to climate change, not just the impact individual application on its own.</p>	-
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Probable	Local	Temporary	<p>This policy will have a positive effect on bio and geo diversity as it requires the application to ensure that :Proposals for minerals and waste development will be required to demonstrate that the proposal will not result in unacceptable adverse impacts on: Biodiversity and geodiversity.</p> <p>Policy wording also states that: When determining relevant planning applications, the Council will ensure that developers consider both the potential individual and cumulative impacts of development. This will act as a further check to safeguard</p>	-

							biodiversity and geodiversity from cumulative impact of operations that individual operations may not have, as well as individual operations.	
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Probable	Local	Temporary	<p>This policy will have a positive effect on landscape and townscape as policy wording includes “Proposals for minerals and waste development will be required to demonstrate that the proposal will not result in unacceptable adverse impacts on:</p> <p>Landscape, character and quality,”</p> <p>This criteria will ensure that local authorities check that operations adhere to this through this policy and policies in the DPD and so safeguard the character of landscape and townscape</p> <p>Policy wording also states that: When determining relevant planning applications, the Council will ensure that developers consider both the potential individual and cumulative impacts of development. This will act as a further check to safeguard landscape and townscape from cumulative impact of operations that individual operations may not have, as well as individual operations.</p>	-

12. To protect and enhance cultural heritage & the historic environment	0	0	0	Probable	Local	Temporary	<p>This policy will safeguard cultural heritage and the historic environment as policy wording requires application to demonstrate Proposals for minerals and waste development will be required to demonstrate that the proposal will not result in unacceptable adverse impacts on:</p> <p>Cultural, heritage and archaeological sites and features.</p> <p>Policy wording also states that: When determining relevant planning applications, the Council will ensure that developers consider both the potential individual and cumulative impacts of development. This will act as a further check to safeguard cultural heritage and the historic environment from cumulative impact of operations that individual operations may not have, as well as individual operations.</p>	-
13. To protect and improve air, water and soil resources	0	0	0	Probable	Local	Temporary	<p>This policy will safeguard air water and soil resources as policy wording requires application to demonstrate “ Proposals for minerals and waste development will be required to demonstrate that the proposal will not result in unacceptable adverse impacts on:</p> <ul style="list-style-type: none"> • Best and most versatile agricultural land and soils, • Traffic, transport and public rights of way, 	-

							<ul style="list-style-type: none"> Surface, groundwater, mine water, water abstraction and flood risk,” <p>Policy wording also states that: When determining relevant planning applications, the Council will ensure that developers consider both the potential individual and cumulative impacts of development. This will act as a further check to safeguard water, air and soil resources from cumulative impact of operations</p>	
14. To reduce waste and encourage the sustainable and efficient use of materials	0	0	0	Probable	Local	Temporary	<p>Minor negative</p> <p>The policy considers the impact of waste development but as written does not reflect the need to manage waste at the highest levels of the waste hierarchy and contribute towards a circular economy to avoid materials being disposed of as waste.</p>	<p>ENV2: Suggest addition of the following wording or similar for consideration alongside other policy criteria:</p> <p>Proposals for minerals and waste development will be required to demonstrate that the proposal will not have unacceptable adverse impacts on....</p> <p>...the efficient use of resources and their conservation</p>
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	0	0	0	Probable	Local	Temporary	<p>This policy will safeguard the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment as policy wording lists criteria that needs to be demonstrated by applications to contribute to sustainable mineral extraction and reduction of adverse impact on communities. Such as:</p>	<p>ENV3: As for ENV2</p>

							<ul style="list-style-type: none"> • Human health, the amenity of local communities and other sensitive receptors, • Land stability • Surface, groundwater, mine water, water abstraction and flood risk • Bio-diversity and Geo-diversity <p>Policy wording also states that: When determining relevant planning applications, the Council will ensure that developers consider both the potential individual and cumulative impacts of development. This will act as a further check to safeguard extraction of minerals, communities and environment</p> <p>However, as drafted the policy does not currently consider the need to safeguard mineral resources and use them efficiently.</p>	
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Table 2 Policy MW2: Mineral Exploration								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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</p>	SOC1: Add the supporting text relating to drilling rigs etc into the policy as specific policy requirements.

							<p>associated with exploration and appraisal are sited in the least sensitive location from which the target reservoir can be accessed, 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>	
<p>3. To improve education, training and life-long learning, and maintain a healthy labour market</p>	✓	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</p>	SOC2: As for SOC1

							<p>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>	
<p>4. To reduce health inequalities and promote healthy lifestyles</p>	✓	✓	✓	<p>Probable short term effects. Possible mid and longer term effects</p>	<p>Countywide and beyond in relation to groundwater drinking resources.</p>	<p>Direct and Temporary</p>	<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</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>

							<p>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>	
5. To reduce the need to travel and promote use of sustainable transport options	×	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 minimised to some extent by ensuring that onsite material is used to restore trial pits and shallow boreholes.	ENV1: As for SOC4
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> <p>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.</p>	ENV2: As for SOC4
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	Possible minor negative	Countywide	Direct and temporary	<p>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</p>	-

							hydrogeological surveys and mitigation as necessary.	
10. To protect and enhance biodiversity and geodiversity	×	✓	✓	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 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).</p> <p>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 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.</p> <p>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</p>	<p>ENV3: As for SOC1</p> <p>ENV4: As for SOC4</p>

							<p>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 if it 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 following the cessation of exploration with trial pits and shallow boreholes.</p> <p>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>	
<p>11. To protect and enhance the quality and character of landscape and townscape</p>	x	✓	✓	Possible	Countywide	<p>Direct and Potential for Permanent Effects</p>	<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 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</p>	<p>ENV5: As for SOC1</p> <p>ENV6: As for SOC4</p>

							<p>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 if it 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 following the cessation of exploration with trial pits and shallow boreholes.</p> <p>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.</p>	
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12. To protect and enhance cultural heritage & the historic environment	x	✓	✓	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 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.</p> <p>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.</p> <p>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 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</p>	<p>ENV7: As for SOC1</p> <p>ENV8: As for SOC4</p>
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							<p>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.</p> <p>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.</p> <p>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>

						<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.</p> <p>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>	
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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	<p>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.</p> <p>Positive medium and longer term effects are possible depending on restoration and after-use schemes.</p>	As for all mitigation measures mentioned above.

Table 3 Policy MW3: Benefits of Minerals Extraction								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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	✓	✓	✓	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 inequalities and promote healthy lifestyles	✓	✓	✓	Possible	Countywide	Direct and Potential for	Positive effects are possible where community benefits enhance or provide facilities or projects which contribute towards health and wellbeing.	-

						Permanent Effects		
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	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. However, 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.	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.
9. To respond and enable adaptation to the inevitable	✓	✓	✓	Possible	Countywide	Direct and Potential for	Positive effects are possible where environmental benefits taken into account relate to opportunities to mitigate flood risk	-

impacts of climate change						Permanent Effects	through the creation of flood storage areas for example.	
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
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.	-
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 4 Policy MW4: Noise								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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 Temporary	<p>The policy criterion sets out clear limits as to what is regarded as acceptable levels of noise, inline with PPG. This will contribute to safeguarding communities by minimising adverse impact on communities as a result of the noise created by minerals extraction 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>SOC2 Supporting texts states that a noise impact assessment as 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 demonstrate how they propose to minimise, mitigate, or remove noise emissions at source using the best available techniques. A noise impact assessment and noise action plan will also be required.</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	✓	✓	✓	Probable	Countywide	Direct Temporary	The policy contains criteria to safeguard health and well being through specifying acceptable noise level and operation hours which will serve to minimise the nuisance of noise pollution as a result of mineral extraction	SOC4 same as SOC2
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 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 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 extraction operations and keep noise within an acceptable level where possible.	SOC6 same as SOC2
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	✓/x	✓/x	✓/x	Possible	local	Indirect	<p>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.</p> <p>However, this policy could have an indirect negative effect on climate change if emissions are increased through noise attenuation measures such as baffle mounds. Whilst baffle mounds are not a requirement of the policy, they could be identified in the noise impact assessment or opted for by the operators to minimise the impact of the noise.</p>	ENV8 same as SOC2
9. To respond and enable adaptation to the inevitable impacts of climate change	✓/x	✓/x	✓/x	Possible	Local	Indirect	<p>The policy states the acceptable noise levels permitted. This could have an indirect positive effect on adaptation to climate change if the use of less noisy equipment to stay within the permitted noise levels excrete lower emissions consequently.</p> <p>However, this policy could have an indirect negative effect on adaptation climate change in the short term if emissions are increased through noise attenuation measures such as baffle mounds. Whilst baffle mounds are not a requirement of the policy, they could be identified in the noise impact assessment or opted for by the operators to minimise the impact of the noise.</p>	ENV9 same as SOC2
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Probable	Local	Direct	<p>Minerals extraction sites are more likely to be in the countryside with low ambient noise levels. The policy will safeguard biodiversity and geodiversity of the area through its requirements regarding acceptable noise</p>	ENV10 same as SOC2

							<p>levels which will minimise and mitigate against the noise pollution that can disturb and disrupt local wildlife.</p> <p>It should be noted that as an indirect consequence, sound reduction measures, such as baffle mound may have a negative effect on biodiversity and geodiversity through the disruption of habitats and increase in emissions to build them.</p>	
<p>11. To protect and enhance the quality and character of landscape and townscape</p>	x	x	x	Possible	Local	Indirect Temporary	<p>Noise level standard may not have an effect on the quality and character of landscape and town scape.</p> <p>It should be noted that as an indirect consequence, noise reduction measures, such as baffle mound may have a negative effect on the character of landscape and townscape</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	✓	✓	Possible	Local	Indirect Temporary	<p>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.</p> <p>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.</p>	ENV13 same as SOC2
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 and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Probable	Local	Direct Permanent	<p>Whilst it is acknowledged that noise is a complex and technical issue and that some noise is inevitable this policy sets out PPG aligned acceptable noise limits according to the time of operation. This will contribute to sustainability of mineral extraction by reducing the adverse impact of the nuisance of noise pollution on communities and the environment.</p>	ENV15 same as SOC2

							It is recognised that there may be times that short-term noisy activity that exceeds the acceptable limits are unavoidable. In these instances, the policy sets out that a higher noise level will be permitted for up to 8 weeks over a 1-year period. This will further contribute to minimising the effect on communities and the environment.	
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Table 5 Policy MW5: Dust								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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	Local	Temporary	<p>Policy wording states that proposals for minerals working and waste development will be permitted where the operator can demonstrate that the dust emissions from the proposed development will not have a demonstrable impact on the environment, local amenity or human health.</p> <p>This will contribute to safeguarding communities by minimising adverse impact on communities as a result of the dust created by minerals extraction operations.</p>	<p>This policy could be made more robust by clarifying what the threshold for when dust emissions become demonstrable.</p> <p>The policy would be further robust if criteria was included in the policy for operators to carry out a Dust Assessment Study, inline with the PPG stages so that these assessments to ensure that dust is minimised are standardised.</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	✓	✓	✓	Probable	Local	Temporary	The policy wording states that operations must demonstrate that the dust emissions from the proposed development will not have a demonstrable impact on human health. This will safeguard health and well being through minimising the nuisance and harm from dust to a level that is not demonstrable.	SOC 4 same as SOC 2
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	✓	✓	✓	Probable	Local	Temporary	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, this includes dust pollution. This policy seeks to mitigate and minimise the impact of dust related operations and keep dust to a level that is not demonstrable.	SOC 6 same as SOC 2
7. To develop a sustainable and	0	0	0	-	-	-	No clear link	-

diverse economy with high levels of employment								
8. To reduce the causes of climate change	✓/x	✓/x	✓/x	Possible	Local	Temporary	The policy wording requires operators to demonstrate that impact dust emissions from operations are indemonstrable this may require measures that also reduce causes of climate change such as less powerful tools or speed limits that produce less emissions. However, measures to mitigate or minimise dust can also require uses of other machinery, such as water bowsers, and so increase emissions that lead to climate change.	ENV 8 same as SOC 2
9. To respond and enable adaptation to the inevitable impacts of climate change	✓/x	✓/x	✓/x	possible	Local	Temporary	The policy wording requires operators to demonstrate that impact dust emissions from operations are indemonstrable this may require measures that also reduce causes of climate change such as less powerful tools or speed limits that produce less emissions. However, measures to mitigate or minimise dust can also require uses of other machinery, such as water bowsers, and so increase emissions that lead to climate change.	-
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	Possible	Local	Temporary	The policy wording will safeguard wildlife and habitats from dust created from relevant operations. It requires operators to demonstrate that impact dust emissions from operations are indemonstrable. Measures to minimise impact of dust, such as speed limits, covering haulage, operation limits in high winds, and dampening methods will reduce	ENV 9 some as SOC 2

							<p>dust pollution on surrounding wildlife and habitats.</p> <p>It should be noted that if some measures, such as water bowsers, are used there is potential for emissions created from this to have an impact on bio-diversity and geo-diversity. However, a Dust Assessment Study would demonstrate that mitigation measures would not negate dust pollution reduction.</p>	
<p>11. To protect and enhance the quality and character of landscape and townscape</p>	✓	✓	✓	Probable	Local	Temporary	<p>The policy wording that operators must demonstrate that dust emissions from operations will not be demonstrable, will safeguard and protect the quality and character of landscape and townscape from any dust emissions that would otherwise pollute and cover the area.</p>	-

12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Probable	Local	Temporary	The policy wording that operators must demonstrate that dust emissions from operations will not be demonstrable, will safeguard and protect any surrounding cultural heritage and historic environment from any dust emissions that would otherwise pollute and cover the area.	-
13. To protect and improve air, water and soil resources	✓/x	✓/x	✓/x	Possible	Local	Temporary/ Residual	<p>The policy requires operators to demonstrate that dust emissions from operations will not be demonstrable. Measures such as using covers over haulages and speed limits will protect and improve air, water and soil resources as a result of this policy.</p> <p>However, some measures such as dampening measures and water bowsers could cause subsequent soil and water contamination. Therefore, it would be for the operators to demonstrate that dust emission reduction measures do not have other negative impacts.</p>	ENV 13 same as SOC 2
14. To reduce waste and encourage the sustainable and efficient use of materials	✓/x	✓/x	✓/x	Possible	Local	Temporary/ Residual	<p>The policy requires operators to demonstrate that dust emissions from operations will not be demonstrable. Measures to comply with the policy, such as speed limits will encourage the sustainable and efficient use of materials.</p> <p>However other measures to reduce of remove dust emissions, such as dampening and the use of water bowsers, require the additional use of resources such as water.</p>	ENV 14 same as SOC 2

<p>15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment</p>	✓/x	✓/x	✓/x	Possible	Local	Temporary/ Residual	<p>This policy could improve the sustainability of minerals and waste operations as measures, such as covering haulage and speed limits will, reduce the adverse impact that dust emissions from relevant operations will have on communities and the environment.</p> <p>However, some measures such as dampening and use of water bowsers could have a negative effect on the environment through, for example, soil or water contamination, increased emissions through us of dust reduction machinery.</p> <p>Therefore, it would be for the operators to demonstrate that dust emission reduction measures do not have other negative impacts.</p>	ENV 15 same as SOC 2
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Table 6 Policy MW6: Blasting								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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 labour market	0	0	0	-	-	-	No clear link	-
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	<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 to be close such sites.</p> <p>This policy seeks to mitigate and minimise the impact of blasting related operations that is not deemed unacceptable.</p>	SOC 6 same as SOC1
7. To develop a sustainable and	0	0	0	-	-	-	No clear link	-

diverse economy with high levels of employment								
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	<p>The policy wording will safeguard wildlife and habitats from blasting related impacts</p> <p>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.</p> <p>This will minimise the impact that vibrations, noise, air over-pressure and particles in the air will have on wildlife and habitats.</p>	ENV 10 same as SOC1

11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	Probable	Local	Temporary	<p>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.</p> <p>This will safeguard the townscape from being altered as a result of adverse impacts vibrations and particle velocity.</p>	ENV 11 same as SOC1
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Probable	Local	Temporary	<p>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.</p>	ENV 12 same as SOC1
13. To protect and improve air, water and soil resources	✓	✓	✓	Probable	Local	Temporary	<p>This policy will protect air and soil resources. Policy wording requires operators to demonstrate that adverse impact on buildings, from blasting, will not be</p>	ENV 13 same as SOC1

							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.	
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 7 Policy MW7: Traffic and Transport								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link The facilitation of the sustainable transport of minerals and waste would not impact the provision of opportunities to live in decent and affordable homes for all. Although it is acknowledged that having this policy will have a positive impact on communities regarding pollution and traffic.	SOC 2 Include, as part of policy criteria to outline what is considered acceptable levels and what becomes unacceptable levels so this aspect of the policy is not ambiguous.
2. To promote strong secure communities	✓	✓	✓	Probable	Countywide	Indirect permanent	Positive effect. Some of the policy criterion will contribute to the safeguarding of communities. This includes <ul style="list-style-type: none"> Requirements of planning applications to demonstrate; Vehicular traffic generated by the proposed development does not have an unacceptable adverse impact on highway safety or the strategic, primary or local road network (in terms of capacity and congestion). Any highways impact resulting from the development should be avoided or mitigated to acceptable levels. Planning considerations and obligations regarding the routing of traffic to and from the site and the 	-

							<p>operating hours of lorry traffic to and from the site before planning permission is granted.</p> <p>However, what is deemed as acceptable and unacceptable adverse impact is down to subjective judgement.</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>Whilst minerals or waste related sites may involve the creation of jobs there is no clear link between this policy and the improvement of education, training and lifelong learning, and maintenance of a health labour market.</p>	-
4. To reduce health inequalities and promote healthy lifestyles	✓	✓	✓	Possible	Countywide	Direct temporary	<p>This policy provides the opportunity to safeguard health and wellbeing through the requirement of sustainable transportation of minerals and waste via by low or zero emissions vehicles.</p> <p>The use of sustainable transport, including walking and cycling is also encouraged.</p> <p>The policy includes criteria that:</p> <ul style="list-style-type: none"> • Vehicular traffic generated by the proposed development does not have an unacceptable adverse impact on highway safety or the strategic, primary or local road network (in terms of capacity and congestion). Any highways impact resulting from the development 	SOC 4. Same as SOC2.

							<p>should be avoided or mitigated to acceptable levels.</p> <p>However, what is deemed as acceptable and unacceptable adverse impact is down to subjective judgement.</p>	
<p>5. To reduce the need to travel and promote use of sustainable transport options</p>	0	✓	✓	Possible	Regional	Direct Permanent	<p>This policy would have little impact in the short term but the possibility of positive impact in the medium and long term.</p> <p>There is potential through the policy to promote the use of sustainable transport through the transportation of minerals and waste including associated travel. This includes</p> <ul style="list-style-type: none"> Where movement of minerals by rail is possible this is encouraged, <p>However, it is acknowledged that there are limited non-road networks to transport minerals. It should be noted that Policy 48 of the CDP safeguards minerals related transportation infrastructure including rail lines and alignments, rail links to quarries and railheads.</p> <p>Regarding sustainable road transport</p> <ul style="list-style-type: none"> The policy criteria require applications to demonstrate, where 	SOC 5, Same as SOC2

							practicable, it optimises the use of public transport, walking and cycling.	
6. To alleviate deprivation and poverty	0	0	✓	Possible	Local	Indirect Permanent	<p>Minor link in the short term to positive effective in the long term.</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.</p> <p>The environment is a main consideration for this policy including greenhouse gas emissions and unacceptable adverse impacts because of dust, dirt, noise and pollution from sites and related transportations.</p> <p>As sustainable transport opportunities continue to emerge and develop and expand this impact is more likely to be positive.</p>	SOC 6, Same as SOC2
7. To develop a sustainable and diverse economy with high levels of employment	0	✓	✓	Possible	Countywide	Indirect Permanent	<p>Whilst there is no clear short-term effect, there is potential for indirect positive effect in the medium to long term of this policy regarding sustainable economy. The policy encourages the use of sustainable transport and seeks to maximise the use of sustainable transport and infrastructure. As the availability of low/no emissions road and non-road transport and infrastructure develops for the movement of minerals, it is possible that this will have a positive effect on the county's sustainable economy and contribute to employment.</p>	
8. To reduce the causes of climate change	×	0	✓	Probable	Countywide	Direct Permanent	<p>Whilst this policy may have a negative impact in the short term (due to the current limitations in infrastructure and transport) it is probable that it will have a positive effect</p>	ENV8, Same as SOC2

							<p>in the long term as transport is a cause of climate change.</p> <p>The level of HGV traffic associated with mineral and waste developments can cause adverse environmental impact by pollution caused by the vehicle emissions. Although zero emissions modes of transport are so far limited in County Durham and all transportation of minerals and waste is via road. The policy seeks to minimise pollution and greenhouse gases caused by this by encouraging sustainable modes of transport (including rail) by low/zero emissions vehicles if possible.</p> <p>Criteria in the policy states that unacceptable adverse impacts on the local road networks, including congestion, should be avoided, or mitigated and that any adverse impact that was severe will not be permitted. Whilst development in an area will increase usage of local road networks the policy does impose conditions regarding traffic routing, access to the site, operating hours of lorry traffic, and highways improvement and maintenance to mitigate the adverse impact caused by associated transport.</p> <p>Although this mitigation would not reduce the traffic related causes of climate change from these developments in the short term, technological advancements continue regarding sustainable transport these impacts will be more easily avoided or mitigated.</p>	
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							It should be noted that what is regarded as severe and unacceptable is down to subjective judgement.	
9. To respond and enable adaptation to the inevitable impacts of climate change	0	✓	✓	Possible	County wide	Direct Permanent	<p>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.</p> <p>This includes infrastructure to allow and support increasing options for sustainable transport and to use technological advancements in sustainable transport to facilitate this adaptation to climate change and enable further opportunities to reduce climate change.</p>	ENV9, Same as SOC2
10. To protect and enhance biodiversity and geodiversity	0	0	0	Probable	Local	Direct temporary	<p>This policy will have a potential minor effect on bio and geodiversity.</p> <p>The policy has measures to mitigate against unacceptable adverse impact on local road works including traffic and congestion, which could adversely impact wildlife and habitats.</p> <p>It should be noted that this would be reliant on what was judged to be unacceptable adverse impact.</p>	ENV10, Same as SOC2

11. To protect and enhance the quality and character of landscape and townscape	0	0	0	Probable	Local	Direct Temporary	<p>This policy will have a minor effect on the enhancement and quality of landscape and townscape.</p> <p>The policy has measures to mitigate against unacceptable adverse impact on local road works including traffic and congestion, which could adversely impact the local landscape.</p> <p>Whilst this would not enhance or necessarily protect the landscape it would safeguard against what is deemed unacceptable adverse impact on the landscape. It should be noted that this would be reliant on what was judged to be unacceptable adverse impact.</p>	ENV10, Same as SOC2
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	0	✓	✓	Probable	Countywide	Direct and potential for permanent effects	The policy includes requirements to ensure that low/zero emissions modes of transport are encouraged, there will be no unacceptable adverse impacts upon the recreational and local amenity, road	ENV13, Same as SOC2

							<p>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 mitigate the adverse impact on the 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 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>Whilst there may currently be limited opportunities for more sustainable non-road-based transport of minerals and limitations regarding HGV on the road, this policy will safeguard opportunities in the future.</p>	
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Possible	Countywide	Indirect	The overarching emphasis on sustainable modes of transport and encouragement through the policy to use low/zero emissions transport where practicable, aligns with encouraging sustainable and efficient use of materials.	ENV14, Same as SOC2

15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Probable	Countywide	Direct and potential for permanent effects	Whilst it is acknowledged that transport routes for movement of minerals in County Durham is limited to road transport due to the complexity of vehicle movements, limited rail infrastructure and navigable waterways, the policy seeks to safeguard non-road infrastructure and make use of technological advancements across the transport sector to facilitate further sustainable methods to move minerals through the county. This could improve the holistic process of minerals extraction in the County, including transportation of the minerals.	ENV15, Same as SOC2
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Table 8 Policy MW8: Rail Handling Facilities								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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.

							<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 with high levels of employment	0	0	0	-	-	-	No clear link	-

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 quality and character of landscape and townscape	✓/x	✓/x	✓/x	Uncertain	Local	Direct Permanent	This policy could have a positive or negative effect depending on how the policy is implemented. 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	ENV 11, same as SOC 2.

							<p>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	×	✓	✓	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.</p> <p>There may be a negative effect whilst the facilities are being built, but once established the effect of the rail facilities will have a positive effect.</p>	ENV 13, same as SOC 2.
14. To reduce waste and encourage the sustainable and	✓	✓	✓	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	ENV 14, same as SOC 2.

efficient use of materials							practicable, aligns with encouraging sustainable and efficient use of materials.	
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	x	✓	✓	Certain	Countywide	Direct Permanent	<p>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.</p> <p>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.</p>	ENV 15, same as SOC 2.

Table 9 Policy MW9: Borrow Pits								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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</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>

							to site and disposing of excavated materials are achieved. However, whilst impacts are likely to be of a temporary nature, as written the policy does 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	✓/x	✓/x	✓/x	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	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.'

							introduce greater flexibility to the policy and potential travel reduction. 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	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. 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.	ECON1: Please see ENV2 ECON2: Reorder the policy so that criterion b is the first consideration.

							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	✓/x	✓/x	✓/x	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 and geodiversity	✓/x	✓/x	✓/x	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 protect and enhance biodiversity. However, the policy does not include criteria to assess the environmental acceptability of working	<p>ENV6: Please see ENV4</p> <p>ENV7: Recognise the importance of achieving biodiversity net gain (BNG) within other policies of the DPD as relevant, including any restoration and aftercare policies</p>

							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.	
11. To protect and enhance the quality and character of landscape and townscape	✓/x	✓/x	?	Possible	Countywide	Direct & Temporary	<p>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.</p> <p>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.</p> <p>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.</p> <p>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</p>	<p>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.</p> <p>ENV9: Please see ENV4</p>

							they are worked etc will be acceptable in respect of landscape and visual impact.	
12. To protect and enhance cultural heritage & the historic environment	✓/x	✓/x	✓/x	Possible	Countywide	Direct & potential for Permanent effects	<p>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.</p> <p>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.</p>	ENV10: Please see ENV4

<p>13. To protect and improve air, water and soil resources</p>	<p>✓/x</p>	<p>✓/x</p>	<p>✓/x</p>	<p>Possible</p>	<p>Countywide</p>	<p>Direct & potential for Permanent effects</p>	<p>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</p> <p>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.</p> <p>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.</p>	<p>ENV11: Please see ENV4</p> <p>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.</p>
<p>14. To reduce waste and encourage the sustainable and efficient use of materials</p>	<p>✓</p>	<p>✓</p>	<p>✓</p>	<p>Possible</p>	<p>Countywide</p>	<p>Direct & Temporary</p>	<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</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>

							<p>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>15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment</p>	✓/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 10 Policy MW10: Onsite Minerals Processing								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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	Local	Indirect	The co-location of plant and equipment needed for the extraction or processing of minerals is likely to have a minor positive impact, given that it is likely to minimise further transport related emissions associated with the transportation of the raw material and the establishment of a further processing site.	-
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	Local	Indirect	The co-location of plant and equipment needed for the extraction or processing of minerals is likely to have minor positive implications in relation to the minimisation of noise odour and dust. There may be more locally based impacts on site, however , because these will take place alongside mining operations, impacts are likely to be	

							minimal. If such operations were to be located elsewhere likely impacts would be greater in terms of more localised impacts and through transportation. Inclusion of i) will help to ensure local impacts are contained to a minimum.	
5. To reduce the need to travel and promote use of sustainable transport options	✓✓	✓✓	✓✓	Certain	Countywide	Direct	The co-location of plant and equipment needed for the extraction or processing of minerals is likely to have positive implications in reducing the need to for travel, by ensuring that proximity between mineral extraction and processing is minimised. It is recognised that such activities should be ancillary to the main purposes of the permission and that the continued use of such equipment will be resisted as this could result in an increase in transport related emissions ii) will help to mitigate this issue.	-
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	✓	✓	✓	Probable	Local	Indirect	In enabling ancillary equipment to be co-located within the site, impacts are likely to have some positive economic impacts, given that further jobs and economic opportunities may be a result of such works. This could include jobs associated with processing or administration. The direct processing of materials is also likely to contribute to the steady supply of minerals in the local economy.	-
8. To reduce the causes of climate change	✓/x	✓/x	✓/x	Possible	Countywide	Direct	The co-location of plant and equipment needed for the extraction or processing of minerals is likely to have positive implications in reducing transport related emissions (see objective 5). Reducing emissions relating to the processing of	ENV1 – Given that the processing of minerals is likely to have further emissions associated with individual oil or diesel generators, it is recommended that the following is added to the supporting text:

							minerals may be difficult in such locations. Power supply is likely to be through the supply of diesel generators if no mains electricity supply exists	<i>Every effort is made to ensure either a grid connection to the site or local renewable energy generation with battery storage for the running of such equipment.</i>
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	-	-	-	No clear link	-
11. To protect and enhance the quality and character of landscape and townscape	0	0	0	Possible	Countywide	Indirect	The co-location of plant and equipment needed for the extraction or processing of minerals is likely to a minor positive impact given that other areas will not be impacted upon through the establishment of processing equipment.	-
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	✓	✓	✓	Possible	Local	Direct	The co-location of plant and equipment needed for the extraction or processing of minerals is likely to have minor positive implications in relation to the minimisation of dust and as such air quality. There may be	-

							more locally based impacts on site, however, because these will take place alongside mining operations, impacts are likely to be minimal. If such operations were to be located elsewhere likely impacts would be greater in terms of more localised impacts and through transportation. Inclusion of i) will help to ensure local impacts are contained to a minimum.	
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 and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Probable	Local	Direct	The co-location of plant and equipment needed for the extraction or processing of minerals is likely to have positive implications for the sustainability of mineral extraction and will minimise the adverse impacts upon communities by avoiding processing activities elsewhere. There may be more localised impacts on site, however these are likely to be minimal when compared to the wider extraction processes.	-

Table 11 Policy MW11: Storage of Minerals								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	Possible	Local	Indirect	Ensuring a supply of minerals through appropriate storage is likely to have minor positive effects for housing in relation to the appropriate safeguarding of materials needed for housebuilding	-
2. To promote strong secure communities	0	0	×	Possible	Local	Indirect	The appropriate storage of minerals at existing sites could have negative impacts. Given that minerals working will have ceased the community will expect the site to be restored and may not expect permission to be extended for the storage of materials. Policy has appropriate safeguards in elements a -c, however time limits on storage are uncertain. There is no detail as to the length of the permission that could be agreed. This therefore has the potential to have adverse long term implications.	-
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	0	0	×	Possible	Local	Direct	The appropriate storage of minerals at existing sites could have negative impacts. Given that minerals working will have ceased the community will expect the site to	SOC1: Clarify maximum time limits for storage of materials

promote healthy lifestyles							be restored and may not expect permission to be extended for the storage of materials. This may impact upon restoration of green infrastructure and/or public rights of way. Whilst it is appreciated that this will be time limited and that environmental impacts will be minimised, there is no detail as to how long such permission could be existing.	
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	0	0	0	-	-	-	No clear link	-
7. To develop a sustainable and diverse economy with high levels of employment	✓	✓	✓	Possible	Local	Direct	Potential for some minor positive effects given that the storage of materials may assist in providing a steady and adequate supply of mineral resources and by ensuring that material is not needlessly sterilised	-
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	0	0	0	-	-	-	No clear link	-

11. To protect and enhance the quality and character of landscape and townscape	0	0	×	Possible	Countywide	Indirect	Policy may extend the life of the facility in the medium to long term which may mean that restoration is delayed	As for SOC1
12. To protect and enhance cultural heritage & the historic environment	0	0	0	Possible	Countywide	Direct	Minor positive possible, given that the storage of minerals may help the supply of materials needed for the repair of heritage buildings	-
13. To protect and improve air, water and soil resources	0	0	0	-	-	-	No clear link	-
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 and use and reduce adverse impacts on communities and the environment	0	0	×	Possible	Local	Indirect	The appropriate storage of minerals at existing sites could have negative impacts. Given that minerals working will cease the community will expect the site to be restored and may not expect permission to be extended for the storage of materials. This may impact upon restoration of green infrastructure and/or public rights of way. Whilst it is appreciated that this will be time limited and that environmental impacts will	As for SOC1

							be minimised, there is no detail as to how long such permission could be existing.	
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Table 12 Policy MW12: Periodic Review of Mineral Planning Permissions								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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)	<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 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.</p> <p>In the event that interest in the working of dormant mineral permissions occurs over the DPD period, full modern</p>	<p>SOC1: Amend policy wording as follows or similar</p> <p>“...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.”</p>

							<p>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 safeguarding communities.</p> <p>The policy could however be strengthened by ensuring it recognises potential social benefits alongside environmental enhancement relating to restoration, after-use and aftercare schemes.</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	✓	✓	✓	Possible	Countywide	Direct and 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 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	SOC2: As for SOC1

						<p>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 safeguarding health and wellbeing.</p> <p>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</p>	
<p>5. To reduce the need to travel and promote use of sustainable transport options</p>	✓	✓	✓	Possible	Countywide	<p>Direct and potential for permanent effects</p> <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</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,

							<p>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. The agreement of new schemes of modern working and restoration would also be likely to minimise associated vehicle movements.</p> <p>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.</p>	<p>human health or the amenity of local communities; and</p> <ul style="list-style-type: none"> 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.
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	-	-	-	<p>Minor positive effect.</p> <p>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.</p>	-

<p>8. To reduce the causes of climate change</p>	✓	✓	✓	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> <p>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.</p>	ENV2 – As for ENV1
<p>9. To respond and enable adaptation to</p>	✓	✓	✓	Possible	Countywide	Indirect and Potential	<p>Possible positive effects are predicted as the agreement of new or updated conditions relating to after uses could</p>	-

the inevitable impacts of climate change						for Permanent Effects	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	<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 directly and indirectly safeguard biodiversity and geodiversity from any adverse effects of minerals working (e.g. by updating conditions relating to noise 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</p>	ENV3 – As for ENV1

						<p>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>	
<p>11. To protect and enhance the quality and character of landscape and townscape</p>	✓	✓	✓	Possible	Countywide	<p>Direct Potential for Permanent Effects</p> <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 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.</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</p>	<p>ENV4 – As for ENV1</p>

						<p>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.</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>	
12. To protect and enhance cultural heritage & the historic environment	✓	✓	✓	Possible	Countywide	<p>Direct Potential for Permanent Effects</p> <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</p>	ENV5 – As for ENV1

						<p>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 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</p>	ENV6 – As for ENV1

						<p>conditions relating to dust, 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.</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>	
14. To reduce waste and encourage the sustainable and efficient	✓	✓	✓	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</p> <p>ENV7 – As for ENV1</p>

<p>use of materials</p>						<p>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>	
<p>15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment</p>	✓	✓	✓			<p>The agreement of new schemes of conditions to ensure that the continued 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.</p> <p>The social benefits of restoration schemes could also be recognised.</p>	<p>As for SOC1 / ENV1</p>

Table 13 Policy MW13: Liaison Groups								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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	Local	Direct Temporary	<p>The policy wording will contribute positively towards safeguarding communities, policy wording includes:</p> <p>The Council will require the establishment of local liaison groups to enable the exchange of information regarding the development throughout the lifetime of any mineral site including both its working any restoration.</p> <p>The establishment of relevant liaison groups throughout the lifetime of operations, regarding information exchange, will foster community engagement and may help to safeguard communities. Discussions may sometimes highlight areas where action could be taken by the Council or by the operator with their agreement.</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	0	0	Possible	Local	Temporary	Minor Positive The establishment of local liaison groups may encourage community engagement in minerals operations. Such engagement may help to alleviate concerns and any associated anxiety, thereby contributing to mental wellbeing. Whilst planning permission will only be granted where it can be demonstrated that operations will not have an unacceptable adverse impacts on health, local liaison groups may be able to identify additional measures to those set out in conditions to further minimise or obviate impacts such as noise, dust, vibration etc.	-
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	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	-

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	0	0	0	-	-	-	No clear link	-
11. To protect and enhance the quality and character of landscape and townscape	0	0	0	-	-	-	No clear link	-
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	0	0	0	-	-	-	No clear link	-
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 and use and reduce adverse impacts on communities and the environment	✓	✓	✓	Probable	Local	Direct Permanent	<p>The establishment of relevant liaison groups throughout the lifetime of operations may assist with reducing any adverse impacts of minerals working on communities. Discussions may highlight areas where action could be taken by the Council or by the operator with their agreement. Although it is recognised that these groups are not decision makers, this avenue of communication will make it more likely that any issues can be resolved and so help make operations and communities more sustainable</p>	-
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Table 14 Policy MW14: Oil and Gas Exploration, Appraisal and Production								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
1. To provide everybody with the opportunity to live in a decent and affordable home	0	0	0	-	-	-	No clear link. 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.	-
2. To promote strong secure communities	0	✓	✓	Possible	Countywide	Direct and Temporary	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: <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 	

						<p>infrastructure with the exploration and appraisal 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>	
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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 that they are forthcoming over the DPD period.</p>	-
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	<p>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.</p> <p>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</p>	-

							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.	
7. To develop a sustainable and diverse economy with high levels of employment	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 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. 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.	
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 Governments 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 determined in the event that they are forthcoming over the DPD period.</p> <p>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.</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>

							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	<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 determined in the event that they are forthcoming over the DPD period.</p> <p>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.</p>	-
10. To protect and enhance biodiversity and geodiversity	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.</p> <p>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 	<p>ENV2: Clarify C3 further as follows or similar:</p> <p>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;</p>

						<p>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).</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. 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 measures to minimise impacts to biodiversity/geodiversity and provide net gains) • 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.) 	
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							<ul style="list-style-type: none"> 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) 	
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.</p> <p>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 objectives of national landscape designations i.e.the North Pennines AONB and Durham Heritage Coast). 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. 	ENV3: As for ENV1

							<p>outside of landscape designation where possible or areas of higher landscape value)</p> <ul style="list-style-type: none"> • 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.) • 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 improvements to landscape character and help deliver the requirements of the County Durham Landscape Strategy) 	
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<p>12. To protect and enhance cultural heritage & the historic environment</p>	<p>0</p>	<p>✓</p>	<p>✓</p>	<p>Possible</p>	<p>Countywide</p>	<p>Direct and Potential for Permanent Effects</p>	<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 affect structural viability of assets e.g. Drilling and vibration) • Extraction, processing and transport facilities are located and operated to minimise both environmental and local amenity impacts and provide 	<p>ENV4: As for ENV1</p>
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							<p>any necessary mitigation and enhancements (these could include measures to ensure the recording and appropriate protection of undiscovered archaeological features for example)</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 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 used for the development of any additional fields discovered where possible will also contribute towards protecting soil resources</p>	ENV5: As for ENV1
14. To reduce waste and encourage the	0	✓	✓	Possible	Countywide	Indirect and Potential	<p>Ensuring that existing permitted facilities are used for the development of any additional fields discovered, where possible will</p>	ENV6: As for ENV1

sustainable and efficient use of materials						for Permanent Effects	indirectly contribute towards the efficient use of materials and avoiding waste associated with the decommissioning stages.	
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 15 Policy MW15: Transport of Oil and Gas								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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	<p>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.</p> <p>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</p>	<p>SOC1: 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 on the environment, human health or the amenity of local communities; and</p> <p>b) It can be demonstrated that the number of pipelines represent the minimum necessary to safely, serve the development and optimal route</p>

							<p>facilities etc are taken into account and avoided where considered unacceptable.</p> <p>However, the policy could further safeguard communities 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 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	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.	SOC2: As for SOC1

							<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 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	ECON1: Amend policy or supporting text to ensure that the local economic impacts of pipeline development are taken into account when determining proposals.

							impact of pipeline development on other business and livelihoods in County Durham.	
8. To reduce the causes of climate change	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	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 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.</p> <p>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</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>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 to achieved possible longer term positive effects.</p> <p>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.</p>	<p>a) There will be no unacceptable adverse impacts on the environment, human health or the amenity of local communities; and</p> <p>b) It can be demonstrated that the number of pipelines represent the minimum necessary to safely, serve the development and optimal route</p>
<p>11. To protect and enhance the quality and character of landscape and townscape</p>	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>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</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 which enhance original landscape quality in order to achieve positive longer term effects.</p> <p>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.</p>	<p>include measures which enhance original landscape quality.</p> <p>ENV4: As for ENV2</p>
12. To protect and enhance cultural heritage & the historic environment	0	✓/x	✓/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 that would lead to substantial harm or total loss of significance will not be permitted.</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</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>

						<p>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 adverse effects could be avoided or mitigated.</p> <p>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.</p>	
13. To protect and improve air, water and soil resources	0	✓/x	✓/x	Possible	Countywide	<p>Direct and Potential for Permanent Effects</p> <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</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>

						<p>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 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. Information on potential impacts to soil and how soil resources will be managed will need to be submitted alongside proposals. 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>	
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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 and use and reduce adverse impacts on communities and the environment	0	✓	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<p>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 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 • Additional wording which could be include within the policy to further safeguard communities and the environment. 	As above (all mitigation measures apply)

Table 16 Policy MW16: Vein Minerals, Lithium, Silica / Moulding Sand and Ganister								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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 significant challenge in bringing forth acceptable schemes	-
2. To promote strong secure communities	0	0	0	Negligible	West Durham	Direct and Temporary	As drafted, the policy is reliant on other policies within the M&WDPD and County Durham Plan to ensure that there will be no unacceptable adverse impacts to communities in the event that proposals for vein minerals, lithium, silica sand, moulding sand or ganister are forthcoming over the DPD period. Whilst these policies should safeguard communities from the main sources of disturbance of minerals working there is no specific criteria or requirements within Policy MW16 which would contribute towards safeguarding communities further. The effects of the policy against the SA	SOC1: Given that the extraction of lithium is a new technological process which is currently being trialled within the UK, additional, specific criteria may be required to help safeguard communities once more information on potential proposals within County Durham are known.

							<p>objectives are therefore currently assessed as negligible.</p> <p>The highly sensitive nature of the environment in West Durham is also likely to present a significant challenge in bringing forth acceptable schemes.</p>	
3. To improve education, training and life-long learning, and maintain a healthy labour market	0	0	0	Negligible	West Durham	Indirect and Temporary	<p>As County Durham does not have a history of lithium extraction and working of the other minerals referred to in the policy have ceased, new or resumed industry may increase local training opportunities. However, the policy does not encourage such development in County Durham. Rather its purpose is to set the framework by which proposals will be determined if they are forthcoming over the DPD period.</p> <p>Please note that the highly sensitive nature of the environment in West Durham is also likely to present a significant challenge in bringing forth acceptable schemes.</p>	-
4. To reduce health inequalities and promote healthy lifestyles	0	0	0	Negligible	West Durham	Direct and temporary	<p>As drafted, the policy is reliant on other policies within the M&WDPD and County Durham Plan to ensure that human health will be protected in the event that proposals for vein minerals, lithium, silica sand, moulding sand or ganister are forthcoming over the DPD period.</p> <p>Whilst these policies should protect health and wellbeing from the main impacts of minerals working e.g. noise, dust, light pollution etc there is no specific criteria or requirements within Policy MW16 which</p>	SOC2: As for SOC1

							<p>would contribute towards safeguarding health and wellbeing further. The effects of the policy against the SA objectives are therefore currently assessed as negligible.</p> <p>The highly sensitive nature of the environment in West Durham is also likely to present a significant challenge in bringing forth acceptable schemes.</p>	
5. To reduce the need to travel and promote use of sustainable transport options	0	0	0	Negligible	West Durham	Direct and temporary	<p>As drafted, the policy is reliant on other policies within the M&WDPD and County Durham Plan to encourage transportation of minerals by sustainable modes and ensure their acceptability in relationship to traffic levels and impacts on the public rights of way network in the event that proposals for vein minerals, lithium, silica sand, moulding sand or ganister are forthcoming over the DPD period.</p> <p>Whilst these policies should reduce the need to travel associated with minerals working there is no specific criteria or requirements within Policy MW16 which would contribute towards this objective further. The effect of the policy against the SA objective is therefore currently assessed as negligible.</p> <p>Please note that the highly sensitive nature of the environment in West Durham is also likely to present a significant challenge in bringing forth acceptable schemes.</p>	ENV1: Given that the extraction of lithium is a new technological process which is currently being trialled within the UK, additional, specific criteria may be required to help reduce the need to travel once more information on potential proposals within County Durham are known.
6. To alleviate deprivation and poverty	0	0	0	Negligible	West Durham	Indirect and temporary	<p>As County Durham does not have a history of lithium extraction and working of the other minerals referred to in the policy have ceased, new or resumed industry may</p>	-

							<p>create jobs. However, there are only small pockets of deprivation within West Durham and the policy does not encourage such development in County Durham. Rather, its purpose is to set the framework by which proposals will be determined in the event that they are forthcoming over the DPD period.</p> <p>Please note that the highly sensitive nature of the environment in West Durham is also likely to present a significant challenge in bringing forth acceptable schemes.</p>	
7. To develop a sustainable and diverse economy with high levels of employment	0	0	0	Negligible	West Durham	Direct and temporary	<p>As County Durham does not have a history of lithium extraction and working of the other minerals referred to in the policy have ceased, new or resumed industry could help to diversify County Durham's rural economy and create economic benefits locally through the creation of direct employment together with indirect, supply chain jobs.</p> <p>However, the policy does not encourage such development in County Durham. Rather, its purpose is to set the framework by which proposals will be determined in the event that they are forthcoming over the DPD period.</p> <p>In this regard, the policy recognises that given the location of the mineral resources, particular regard would need to be given to any adverse impacts on tourism, but the policy does not set out any specific requirements in this regard. The effect of the</p>	-

							<p>policy against the SA objective is therefore currently assessed as negligible.</p> <p>Please note that the highly sensitive nature of the environment in West Durham is also likely to present a significant challenge in bringing forth acceptable schemes.</p>	
8. To reduce the causes of climate change	✓/x	✓/x	✓/x	Possible	West Durham and Nationally	Direct and Potential for Permanent Effects	<p>The extraction of minerals which are not currently worked within County Durham will inevitably increase greenhouse gas emissions.</p> <p>However, it is recognised that the policy does not encourage such development in County Durham. Rather, its purpose is to set the framework by which proposals will be determined in the event that they are forthcoming over the DPD period.</p> <p>In this regard, the policy recognises that particular regard will need to be given to several environmental receptors due to the location of the resources. However, policy MW3 (Benefits of Minerals extraction) also states that particular value will be placed upon benefits which help to mitigate and adapt to climate change.</p> <p>In this regard, Lithium is used to create batteries which are crucial for decarbonising the transport and power 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 for primary sources are likely to be required to meet demand. However, obtaining lithium by conventional means takes its own environmental toll and</p>	<p>ENV2: Include the following wording or similar:</p> <p>Given the location of these mineral resources particular regard will be given to the consideration 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.</p> <p>Particular regard will also be given to opportunities to meet national demand for lithium, locally and by methods which have a lower environmental footprint.</p>

							it is considered that particular regard should also be given in the policy to opportunities to meet the UK's demand for lithium locally as opposed to from sources within Australia, Chile or Argentina and by methods with a lower environmental footprint i.e. extraction from geothermal rocks compared to hard rock mining or underground reservoirs.	
9. To respond and enable adaptation to the inevitable impacts of climate change	0	0	0	Negligible	West Durham	Direct and potential for permanent effects	<p>As drafted, the policy is reliant on other policies within the M&WDPD and County Durham Plan to ensure that proposals do not exacerbate any worsening impacts as a result of climate change (e.g. increased flood risk etc) in the event that proposals for vein minerals, lithium, silica sand, moulding sand or ganister are forthcoming over the DPD period.</p> <p>Whilst these policies should ensure proposals are compatible with adaptation objectives there are no specific criteria or requirements within Policy MW16 which would contribute towards this objective further. The effect of the policy against the SA objective is therefore currently assessed as negligible</p> <p>Please note that the highly sensitive nature of the environment in West Durham is also likely to present a significant challenge in bringing forth acceptable schemes.</p>	ENV3: Given that the extraction of lithium is a new technological process which is currently being trialled within the UK, additional, specific criteria may be required to help ensure compatibility with adaptation objectives once more information on potential proposals within County Durham are known.
10. To protect and enhance biodiversity and geodiversity	0	0	0	Negligible	West Durham	Direct and potential for permanent effects	<p>As drafted, the policy is reliant on other policies within the M&WDPD and County Durham Plan to ensure that proposals are environmentally acceptable in the event that proposals for vein minerals, lithium, silica</p>	ENV4: Given that the extraction of lithium is a new technological process which is currently being trialled within the UK, additional, specific criteria may be required to help ensure compatibility with biodiversity objectives once more

							<p>sand, moulding sand or ganister are forthcoming over the DPD period.</p> <p>These policies should ensure proposals meet requirements in relation to the hierarchy of international, national and locally designated sites and protected species and meet biodiversity net gains. Policy MW16 recognises that, given the location of the mineral resources, particular regard would need to be given to these designations but does not set out any specific requirements in this regard. The effect of the policy against the SA objective is therefore currently assessed as negligible.</p>	<p>information on potential proposals within County Durham are known</p>
<p>11. To protect and enhance the quality and character of landscape and townscape</p>	0	0	0	Negligible	West Durham	<p>Direct and Potential for Permanent Effects</p>	<p>As drafted, the policy is reliant on other policies within the M&WDPD and County Durham Plan to ensure that proposals are environmentally acceptable in the event that proposals for vein minerals, lithium, silica sand, moulding sand or ganister are forthcoming over the DPD period.</p> <p>These policies should ensure proposals meet requirements in relation to protecting the special qualities of the North Pennines 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>Policy MW16 recognises that, given the location of the mineral resources, particular regard would need to be given to landscape designations but does not set out any specific requirements in this regard. The</p>	<p>ENV5: Given that the extraction of lithium is a new technological process which is currently being trialled within the UK, additional, specific criteria may be required to help ensure compatibility with biodiversity objectives once more information on potential proposals within County Durham are known</p>

							effect of the policy against the SA objective is therefore currently assessed as negligible.	
12. To protect and enhance cultural heritage & the historic environment	0	0	0	Negligible	West Durham	Direct and Potential for Permanent Effects	<p>As drafted, the policy is reliant on other policies within the M&WDPD and County Durham Plan to ensure that proposals are environmentally acceptable in the event that proposals for vein minerals, lithium, silica sand, moulding sand or ganister are forthcoming over the DPD period.</p> <p>These policies should ensure proposals which lead to substantial harm to, or total loss of, the significance of a designated heritage asset will only be acceptable where it can be demonstrated that it is necessary to achieve substantial public benefits that outweigh that harm or loss and that a balanced judgement is made in respect of archaeological features which generally favours their preservation in situ.</p> <p>Policy MW16 recognises that, given the location of the mineral resources, particular regard would need to be given to conservation areas and other heritage assets but does not set out any specific requirements in this regard. The effect of the policy against the SA objective is therefore currently assessed as negligible.</p>	ENV6: Given that the extraction of lithium is a new technological process which is currently being trialled within the UK, additional, specific criteria may be required to help ensure compatibility with biodiversity objectives once more information on potential proposals within County Durham are known
13. To protect and improve air, water and soil resources	0	0	0	Negligible	West Durham	Direct and Potential for Permanent Effects	<p>As drafted, the policy is reliant on other policies within the M&WDPD and County Durham Plan to ensure that proposals are environmentally acceptable in the event that proposals for vein minerals, lithium, silica</p>	ENV7: Given that the extraction of lithium is a new technological process which is currently being trialled within the UK, additional, specific criteria may be required to help protect air, water and soil

						<p>sand, moulding sand or ganister are forthcoming over the DPD period.</p> <p>These policies should ensure that proposals do not incur emissions to air which exceed national objectives, soil resources are managed and conserved in a viable manner and that mineral 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. Ensuring that any impacts of extracting lithium can be mitigated which can be very water intensive and impact on groundwater resources will be key in the event the proposals are forthcoming.</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> <p>Policy MW16 recognises that, given the location of the mineral resources, particular regard would need to be given to impacts on designated areas (and their associated air, water and soil resources) but does not set out any specific requirements in this regard.</p> <p>The effect of the policy against the SA objective is therefore currently assessed as negligible.</p>	<p>resources (and specifically, water resources) once more information on potential proposals within County Durham are known.</p>
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<p>14. To reduce waste and encourage the sustainable and efficient use of materials</p>	<p>0</p>	<p>0</p>	<p>0</p>	<p>Negligible</p>	<p>West Durham</p>	<p>Direct and Potential for Permanent Effects</p>	<p>As drafted, the policy is reliant on other policies within the M&WDPD and County Durham Plan to ensure that proposals are environmentally acceptable in the event that proposals for vein minerals, lithium, silica sand, moulding sand or ganister are forthcoming over the DPD period.</p> <p>These policies will encourage proposals to minimise the amount of mineral waste produced in extraction, handling, processing, and stockpiling; and to maximise the potential for mineral waste to be used in recycling or on-site restoration.</p> <p>However, there is no specific criteria or requirements within Policy MW16 which would contribute towards this objective further. The effect of the policy against the SA objective is therefore currently assessed as negligible.</p> <p>In relation to ensuring the efficient use of mineral resources, positive effects could however be predicted in the event that the policy required proposals to demonstrate that the minerals will be extracted for the purposes for which their specific qualities are essential.</p>	<p>ENV8: Include the following criterion or similar:</p> <p>Proposals will be required to demonstrate that the mineral to be extracted will be used for the purposes for which their specific qualities are essential.</p>
<p>15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities</p>	<p>0</p>	<p>0</p>	<p>0</p>	<p>Negligible</p>	<p>West Durham</p>	<p>Direct and Potential for Permanent Effects</p>	<p>There is uncertainty whether proposals for vein minerals, lithium, silica sand, moulding sand or ganister will come forward over the Plan period. The policy as drafted intends to set the planning framework in case such proposals are forthcoming over the DPD period and does not encourage such development per se. In establishing the framework, this policy is reliant on other</p>	<p>As for all mitigation measures mentioned above.</p>

<p>and the environment</p>								<p>policies to determine effects against and whilst it recognises the likely environmental constraints given the geographic location of the resources, it does not include any specific criteria or requirements. Effects against this and the majority of the SA objectives are therefore assessed as negligible.</p> <p>The SA has identified that specific criteria to further safeguard communities and the environment could be considered once more information on potential lithium proposals in County Durham are known. In addition, as currently drafted, the policy could give particular regard to opportunities to meet the demand for lithium locally and by methods which have a lower environmental footprint. The policy could also ensure that minerals extracted are used only for purposes for which their specific qualities are essential to ensure the most efficient use of mineral resources.</p>	
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Table 17 Policy MW17: Peat								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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
4. To reduce health inequalities and	0	0	0	Minor positive	Predominantly West Durham although	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	-

promote healthy lifestyles					small pockets of peat exist elsewhere in County Durham.		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 with high levels of employment	0	0	0	Minor negative	Predominantly West Durham although small pockets of peat exist elsewhere in	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 considered commercially unattractive, preventing new sites is also unlikely to impact significantly on job creation opportunities or rural diversification. Such	This is a residual impact.

					County Durham.		opportunities are also already constrained in any event by landscape and natural 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 planet's 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 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	Direct and Permanent	Peatlands are important for biodiversity, supporting a unique assemblage of wildlife. They are included as priority habitats in	-

					of peat exist elsewhere in County Durham.		<p>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.</p> <p>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.</p>	
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	<p>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.</p> <p>However, minor positive effects only are predicted given that County Durham's peat resource is considered commercially 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.'</p>	-

<p>12. To protect and enhance cultural heritage & the historic environment</p>	<p>0</p>	<p>0</p>	<p>0</p>	<p>Minor positive</p>	<p>Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.</p>	<p>Direct and Permanent</p>	<p>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.</p> <p>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.</p>	<p>-</p>
<p>13. To protect and improve air, water and soil resources</p>	<p>0</p>	<p>0</p>	<p>0</p>	<p>Minor positive</p>	<p>Predominantly West Durham although small pockets of peat exist elsewhere in County Durham.</p>	<p>Direct and Permanent</p>	<p>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 conservation designations contribute towards the protection of the vast, majority of the resource.</p>	

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 18 Policy MW18: Inert Waste 'Other Recovery'								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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 	-

							<p>transport impacts to communities</p> <ul style="list-style-type: none"> 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 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.	<p>Criteria within the policy will contribute directly and indirectly towards reducing the need to travel.</p> <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 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	✓	✓	✓	Possible	Countywide	Direct and potential for permanent effects	The measures included within the policy regarding benefits and specifically those to agriculture may	-

high levels of employment							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 climate change	✓	✓	✓	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 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 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	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	-

					Permanent Effects	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.	
14. To reduce waste and encourage the sustainable and efficient use of materials	✓	✓	✓	Possible	Countywide	<p>Direct and Potential for Permanent Effects</p> <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.</p> <p>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>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>

								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.	
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 19 Policy MW19: Inert Waste Disposal via landfill								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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 effects (on restoration of sites)	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. <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 	-

					<p>existing 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</p> <ul style="list-style-type: none"> • 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 during operation (e.g. noise, traffic, light pollution, dust, odour etc) and restoration proposals 	
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						<p>return the land to its original or better state in respect of safety, security and visual amenity.</p> <ul style="list-style-type: none"> 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 		
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.	-

<p>5. To reduce the need to travel and promote use of sustainable transport options</p>	<p>0</p>	<p>✓</p>	<p>✓</p>	<p>Probable</p>	<p>Countywide</p>	<p>Direct and indirect temporary effects.</p>	<p>Several criteria within the policy will contribute directly and indirectly towards reducing the need to travel including.</p> <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. • Resisting landraise proposals unless capacity at existing landfill sites is insufficient will contribute towards directing waste to pre-existing development which have been found to 	<p>-</p>
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							be acceptable in relation to their traffic levels.	
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.	-
8. To reduce the causes of climate change	0	✓	✓	Probable	Countywide	Direct and indirect temporary 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. Please note that inert waste is not chemically or biologically reactive and therefore unlikely to create landfill gas	-
9. To respond and enable	0	✓	✓	Probable	Countywide	Direct and Potential for	Resisting landraise proposals unless capacity at existing landfill sites is insufficient will minimise	-

adaptation to the inevitable impacts of climate change						Permanent Effects	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 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 ecological value are avoided, impacts of the operation of the site to biodiversity can be mitigated and that resulting restoration benefits outweigh harm.</p>	-

<p>11. To protect and enhance the quality and character of landscape and townscape</p>	<p>0</p>	<p>✓</p>	<p>✓</p>	<p>Possible</p>	<p>Countywide</p>	<p>Direct and potential for Permanent Effects</p>	<p>Resisting proposals which cannot be managed at a higher level of the waste hierarchy or be accommodated by existing 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>	<p>-</p>
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<p>12. To protect and enhance cultural heritage & the historic environment</p>	<p>0</p>	<p>✓</p>	<p>✓</p>	<p>Possible</p>	<p>Countywide</p>	<p>Direct and Potential for Permanent Effects</p>	<p>Resisting proposals which cannot be managed at a higher level of the waste hierarchy or be accommodated by existing 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.</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 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.</p>	<p>-</p>
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<p>13. To protect and improve air, water and soil resources</p>	<p>0</p>	<p>✓</p>	<p>✓</p>	<p>Possible</p>	<p>Countywide</p>	<p>Direct and Potential for Permanent Effects</p>	<p>Resisting proposals which cannot be managed at a higher level of the waste hierarchy or be accommodated by existing 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 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.</p> <p>Measures discussed against SA objective 5 which contribute towards reducing the transportation of inert waste will also contribute positively to</p>	<p>ENV1 – Include the following wording, or similar within the policy or supporting text:</p> <p>When submitting proposals, due regard should be given to the Environment Agency’s Landfill Technical Guidance:</p> <p>https://www.gov.uk/government/collections/environmental-permitting-landfill-sector-technical-guidance</p>
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						minimising vehicle emissions to air associated with the haulage of inert waste and working of landfill sites.	
14. To reduce waste and encourage the sustainable and efficient use of materials	0	✓	✓	Possible	Countywide	<p>Direct and Potential for Permanent Effects</p> <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</p>	<p>ENV2 – Amend policy wording as follows or similar:</p> <p>4. The proposal would not result in the creation of excessive an over-provision of capacity which could lead to the unnecessary excessive importation of inert waste from outside County Durham.</p>

						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.		
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	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.	-

Table 20 Policy MW20: Non-Hazardous Landfill								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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 landfill sites.	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 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. 	-

							<ul style="list-style-type: none"> Ensuring proposals are supported by a scheme for the long-term management of leachate and landfill gas. 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. 	
3. To improve education, training and life-long learning, and maintain a healthy labour market	✓	✓	✓	Possible	Countywide	<p>Direct and temporary effects</p> <p>Effects are temporary but have the potential to be long term depending on the operational life of new landfill sites.</p>	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	<p>Direct and indirect effects.</p> <p>Effects are temporary</p>	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.	-

						but have the potential to be long term depending on the operational life of new landfill sites.		
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.	Several criteria within the policy will contribute directly and indirectly towards minimising the transportation of waste: <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 • 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 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 climate change	✓/x	✓/x	✓/x	Possible	Countywide	Direct and indirect permanent effects.	<p>A number of criteria within the policy contribute towards minimising greenhouse gas emissions from waste management 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>	<p>ENV1: Suggest amending policy wording as follows or similar:</p> <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.</p>
9. To respond and enable adaptation to the inevitable impacts of	0	0	0	Minor positive	Countywide	Indirect and Potential for Permanent Effects	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 ensure that proposals do not contribute to flood risk or affect water supply	-

climate change								
10. To protect and enhance biodiversity and geodiversity	✓	✓	✓	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 non-hazardous landfill schemes in County Durham and their potential 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 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.</p>	-
11. To protect and enhance the quality and character of landscape and townscape	✓	✓	✓	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 non-hazardous landfill schemes in County Durham and their potential impacts to landscape character and quality.</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. The potential for longer term positive effects is therefore predicted.</p>	-

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 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.</p>	-
13. To protect and improve air, water and soil resources	✓/x	✓/x	✓	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>	ENV2: As for ENV1

							<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 also contribute toward improving soil quality in the longer term.</p>	
<p>14. To reduce waste and encourage the sustainable and efficient use of materials</p>	✓	✓	✓	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.</p> <p>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 the creation of excessive an over-provision of capacity which could lead to the unnecessary excessive importation of non-hazardous waste from outside County Durham.</p>

15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	0	0	0	-	-	-	No clear link other than proposals for the disposal of non-hazardous waste by landfill may include the restoration of quarries via landfill.	-
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Table 21 Policy MW21: Water Resources								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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	✓/x	✓/x	✓/x	Possible	Countywide	Direct and temporary	Currently around 96% of UK sludge is recycled to land. ¹ However, this may change in the future depending upon the outcomes of the Environment Agency's regulatory review of sludge treatment. In order to ensure planning flexibility towards any changes to residual sludge arisings and associated need to dispose of it the policy	SOC1: Suggest inclusion of the following criterion or similar: Permissions will be granted for proposals for the disposal of sewage sludge where it is demonstrated that the proposal:

¹ <https://www.gov.uk/government/publications/environment-agency-strategy-for-safe-and-sustainable-sludge-use>

							states that permission will be granted for proposals for the disposal of sewage sludge where it is demonstrated that... (c) it will not cause unacceptable adverse impacts on the environment, human health or the amenity of local communities. This safeguard is likely to ensure that communities are protected from the main impacts of sewage disposal e.g. traffic, noise, odour etc in the event that further disposal facilities are required. However, it is considered that the policy could contribute further to the avoidance of new facilities by requiring proposal to demonstrate that the sludge to be disposed of is the residue of a treatment process and cannot be managed at a higher level of the waste hierarchy.	a. Is for sludge which is the residue of a treatment process and cannot be managed at a higher level of the waste hierarchy.
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	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. The criteria within the policy relating to landfill and landraise proposals i.e. not	SOC2: As for SOC1

							<p>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 and should therefore contribute towards protecting health and wellbeing, and particularly for residents within Hartlepool who are dependent on County Durham's groundwater for their drinking water supply.</p> <p>Indirectly, the flexibility included within the policy relating to the future disposal of sludge may benefit health and wellbeing in the event that the Environment Agency's review of sludge treatment concludes that less should be spread on land due to new hazards which could find their way into the food chain e.g. organic and inorganic chemical, anti-microbial resistance and microplastics.</p> <p>Ensuring that any disposal proposal will not cause unacceptable adverse impacts on human health is also likely to ensure that potential sources of disruption and pollution which can adversely impact on health and wellbeing are mitigated e.g. noise, traffic, odours, light pollution, emissions to air etc</p> <p>However, as stated against SA objective 1 it is considered that the policy could contribute further to the avoidance of new facilities by inclusion of an additional criterion.</p>	
5. To reduce the need to travel and promote use of sustainable	?	?	?	Uncertain	Countywide and North East	Direct	Effects are uncertain as it is not possible to ascertain whether locating landfills or landraise operations away from Source Protection Zones will increase or decrease the need to transport waste from where it	-

transport options							arises. In addition, it is not possible to ascertain whether the potential location of disposals facilities will decrease the transportation of sludge compared to current rates of recycling it to agricultural land as organic manure, although it is understood that water companies generally supply treated sludge to be spread locally. 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	-
8. To reduce the causes of climate change	✓/x	✓/x	✓/x	Possible	Countywide	Indirect, Direct & Permanent	Restricting landfill and landraise 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. However, as mentioned against SA objective 5, there is uncertainty in relation to potential changes to waste transportation	ENV1: Suggest inclusion of the following criterion or similar: Permissions will be granted for proposals for the disposal of sewage sludge where it is demonstrated that the proposal: Is for sludge which is the residue of a treatment process and cannot be managed at a higher level of the waste hierarchy,

							<p>distances and associated greenhouse gas emissions. In the event that incinerators or landfills for the disposal of sludge are required, these are likely to increase greenhouse gas emissions.</p> <p>The Environment Agency state in their Strategy for Safe and Sustainable Sludge Use that treatment processes have evolved. There is now a focus on the energy value of sludge via the production of gas through anaerobic digestion. Accordingly, the recovery of energy from sludge prior to disposal could be recognised further within the policy text</p>	including recovery to produce biogas.
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	✓/x	✓/x	✓/x	Possible	Countywide	Direct & potential for Permanent effects	<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 and riparian habitats and species. There is however uncertainty as to whether the policy also applies to coastal waters and it may be useful to clarify this further.</p> <p>Not permitting landfill or landraise proposals in any strata where the groundwater provides an important contribution to river flow or other sensitive receptors will also contribute towards protecting the ecological</p>	<p>ENV2: Clarify approach to coastal waters</p> <p>ENV3: As for ENV1</p>

						<p>health of water bodies and associated species/habitats including those subject to nature conservation designations.</p> <p>The flexibility included within the policy relating to the future disposal of sludge may also benefit wider ecological health in the event that the Environment Agency's review of sludge treatment concludes that less should be spread on land due to new hazards which could contaminate soil and associated habitats/species.</p> <p>Criterion c of the policy which only permits proposals for the disposal of sewage sludge where it is demonstrated that it will not cause unacceptable adverse impacts on the environment will also safeguard biodiversity from the main impacts of sewage disposal e.g. traffic, noise, odour etc in the event that further disposal facilities are required.</p> <p>However, it is considered that the policy could contribute further to the avoidance of new facilities by requiring proposals to demonstrate that the sludge to be disposed of is the residue of a treatment process and cannot be managed at a higher level of the waste hierarchy.</p>	
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11. To protect and enhance the quality and character of landscape and townscape	✓/x	✓/x	✓/x	Possible	Countywide	Direct & Indirect Potential for Permanent Effects	<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 and landraise in Groundwater Source protection Zone1 should contribute indirectly to protecting the landscape character and quality of the Magnesian Limestone Plateau. Elsewhere, 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.</p> <p>Criterion c of the policy which only permits proposals for the disposal of sewage sludge where it is demonstrated that it will not cause unacceptable adverse impacts on the environment will safeguard landscape character and quality from the visual impacts of sewage disposal in the event that further disposal facilities are required. However, it is considered that the policy could contribute further to the avoidance of new facilities by requiring proposals to demonstrate that the sludge to be disposed of is the residue of a treatment process and cannot be managed at a higher level of the waste hierarchy.</p>	ENV4: As for ENV1
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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	✓/x	✓/x	Possible	Countywide	Direct & potential for Permanent effects	<p>The policy is directly compatible with the protection of County Durham's water resources from minerals and waste working.</p> <p>The flexibility included within the policy relating to the future disposal of sludge may also benefit soil resources in the event that the Environment Agency's review of sludge treatment concludes that less should be spread on land due to new hazards which could contaminate it.</p> <p>However, as mentioned against other SA objectives, it may be useful to clarify the policy's application to coastal waters and include wording within the policy which contributes towards the avoidance of new sewage sludge disposal facilities and their potential effects on air, water and soil resources.</p>	ENV5: As for ENV1 and ENV2
14. To reduce waste and encourage the sustainable and efficient use of materials	x	x	x	Possible	Countywide	Direct & Temporary	<p>Whilst it is recognised that the policy needs to include planning flexibility towards the disposal of sewage sludge given that the way it is currently managed is subject to change, it is considered that the policy could more clearly reflect the waste hierarchy and encourage the continued use of sludge as a beneficial resource.</p>	ENV6: As for ENV1

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.	-
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Table 22 Policy MW22: Mineral Site Restoration, Landfill and Landraise								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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.	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

							<p>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.</p> <p>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</p> <p>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.</p> <p>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.</p>	<p>amendment is suggested to the supporting text to reflect this:</p> <p>“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”</p>
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 iflong learning opportunities e.g. access to nature, heritage etc	-
4. To reduce health	✓	✓	✓	Possible	Countywide	Indirect and	Afteruses may provide benefits to health and wellbeing where they provide for enhanced	-

inequalities and promote healthy lifestyles						Potential for Permanent Effects	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. 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	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. As stated against SA objective 1, further clarification is required in relation to whether	ECON1 – As for SOC1

							afteruses could include built development for business purposes.	
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 contribute towards the sequestration of greenhouse gas emissions eg. through tree planting.</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>	<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 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.....”</p>
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	✓/x	✓/x	x	Possible	Countywide	Direct and Potential for Permanent Effects	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	<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</p>

						<p>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 appropriate.' This is considered contrary to County Durham Plan policy 41 which requires net gains for biodiversity to be provided. The Government has also proposed that all development in England will be required to demonstrate a 10% increase in biodiversity on or near development sites which will come into force after a two-year transition period after the new Environment Bill for England receives royal ascent. It is therefore suggested that the wording of the policy is amended to address this.</p> <p>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.</p> <p>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.</p>	<p>networks and other relevant plans and strategies.</p> <p>ENV3: Suggest amending the policy wording as follows or similar:</p> <p>7. Are carried out in a way which avoid or minimises harm to acceptable levels.</p>
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11. To protect and enhance the quality and character of landscape and townscape	✓/x	✓/x	✓	Possible	Countywide	Direct and Potential for Permanent Effects	<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 is likely to contribute towards minimising the landscape and visual impacts of minerals and temporary waste development as they are worked.</p> <p>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 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</p>	ENV4: As for ENV3
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							<p>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>	
<p>12. To protect and enhance cultural heritage & the historic environment</p>	✓/x	✓/x	✓	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 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, 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</p>	<p>ENV5: As for ENV3</p>

							<p>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 agricultural land cannot be restored to at least its original quality.</p> <p>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.</p>	ENV6: As for ENV3

							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.	
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	✓/x	✓/x	✓/x	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 23 Policy MW23: Site Specific Allocation at Thrislington West Quarry								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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 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</p>	N/A – Extending the operational life of the quarry is a residual effect

						<p>may 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>	
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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	-

						<p>one of the most deprived in the County. The other half of the site falling in the Bishop Middleham LSOA which is one of the least deprived in the County.</p> <p>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.</p> <p>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.</p>		
7. To develop a sustainable and diverse economy with high levels of employment	0	✓	✓	Possible	Countywide	Direct and Temporary	<p>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.</p>	-
8. To reduce the causes of climate change	0	×	×	Certain	Countywide	Direct and Potential for Permanent Effects	<p>There are a number of advantages to allocating Thrislington West Quarry in respect of reducing the causes of climate change. These are:</p> <ul style="list-style-type: none"> • There would be no need to remove overlain material to access the sand which could 	N/A – this is a residual effect

							<p>increase the emissions associated with extraction; and</p> <ul style="list-style-type: none"> • There are opportunities to make use of existing rail connections to the site to minimise emissions associated with transport <p>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.</p>	
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	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.

						<p>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.</p> <p>As the site is an existing working quarry, it is not likely to have any additional adverse 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. However, 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>Whilst the working of the area will delay site restoration the need for a high quality restoration and aftercare scheme to accompany proposals may provide opportunities to enhance biodiversity outcomes.</p>	
11. To protect and enhance the quality and character of landscape and townscape	0	0	✓	Possible	South Durham	Direct and Potential for Permanent Effects	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, -

						<p>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.</p> <p>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>	
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12. To protect and enhance cultural heritage & the historic environment	0	0	0	No effect	-	-	There are no registered parks, gardens, battlefields or World Heritage Sites within the proposal site. The site is not located in a Conservation Area, and the nearest Conservation Areas are Cornforth to the north approximately 900m from the proposed Basal Permian Sand extraction area, and Mainsforth to the south which is approximately 750m from the site boundary. There are no Listed Buildings in or close to the site, with the nearest listed artefacts being Cornforth War Memorial, Ferryhill Station War Memorial and Mainsforth Hall gates and gate piers which are all Grade II Listed and between 500-750m from the site boundary.	-
13. To protect and improve air, water and soil resources	0	x	x	Probable	South Durham	Direct and Potential for Permanent Effects	<p>Air: Allocating the proposed sand extraction area at Thrislington West Quarry would extend the operational life of the 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</p>	<p>ENV3 – Proposals should be accompanied by a hydrogeological assessment and an outline of measures which avoid or minimise air and water pollution.</p> <p>The loss of part of the principal aquifer would be a residual impact of working the proposed extraction area.</p>

					<p>The site is not within close proximity to a watercourse to impact directly through surface water infiltration but mitigation measures can be implemented to ensure contamination can't happen.</p> <p>The proposals largest potential impact on water resources is the loss of Magnesium Limestone and yellow sands which are Principal Aquifers. A hydrological assessment would be required in order to fully assess the impact. Negative effects against this SA objective are predicted as a result.</p> <p>Further mitigation measures such a regular vehicle maintenance to minimise risks of oil leaks or similar, and the use of sustainable drainage measures with sediment run off areas for the wheel washing areas can also be implemented in order to minimise impact.</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</p>	
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						opportunity to restore the land and provide an improvement to soil quality.		
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 and use and reduce adverse impacts on communities and the environment	0	✓	✓	Certain	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 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.	-

Table 24 Policy MW24: Site specific allocation – Northern Extension to Crime Rigg Quarry								
SA/SEA Object. Number	Impact & Timescale of Effects			Likelihood of Effect	Spatial Scale	Type of Effect	Commentary/ Explanation	Mitigation
	S	M	L					
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	<p>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 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</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> <p>SOC2 – Consider amending policy wording as follows or similar:</p> <p>5. That the extension delivers a range of environmental and local community benefits, including but not limited to landscape enhancement, biodiversity and geodiversity enhancement.</p>

					<p>(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. In addition, the proposed annual rates of extraction of both minerals are higher than extraction rates in recent years which could also increase vehicle movements. There is uncertainty as to whether any increase in vehicle movements could be accommodated by exiting traffic limits conditioned with existing permissions.</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 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</p>	
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						<p>Assessments are likely to 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> <p>In the longer term the policy requirement for the extension to deliver a range of environmental benefits may benefit communities too e.g. the creation of an accessible community woodland for example. However, as currently drafted, local and community benefits are not required.</p>	
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3. To improve education, training and life-long learning, and maintain a healthy labour market	✓	✓	✓	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	-
4. To reduce health inequalities and promote healthy lifestyles	?	?	?	Uncertain	Central Durham	Direct and Temporary	<p>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 event that a northern extension to Crime Rigg Quarry is allocated in the M&WDPD and a planning application is forthcoming further assessment of effects will be required to determine appropriate avoidance and mitigation measures if required.</p> <p>In the longer term the policy requirement for the extension to deliver a range of environmental benefits may benefit communities too e.g. the creation of an accessible community woodland for example. However, as currently drafted, local and community benefits are not required.</p>	<p>SOC3 – Detailed assessments on the impact of working the northern extension both concurrently with the existing quarry and on separately on human health and wellbeing will be required to inform the planning decision.</p> <p>SOC4 – As for SOC2</p>

<p>5. To reduce the need to travel and promote use of sustainable transport options</p>	<p>x</p>	<p>x</p>	<p>0</p>	<p>Certain</p>	<p>Central Durham</p>	<p>Direct and Temporary</p>	<p>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 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</p>	<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 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>
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							<p>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 and east of Haswell Moor Farm.</p>	
6. To alleviate deprivation and poverty	✓	✓	✓	Possible	Central Durham	Indirect and Temporary	<p>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.</p> <p>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.</p> <p>The policy requirement for the extension to deliver a range of environmental benefits may also contribute towards the regeneration</p>	SOC5 – As for SOC2

							of deprived areas. However, as currently drafted, local and community benefits are not required.	
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	×	×	0	Certain short and mid term effects. Uncertain longer term effects.	Countywide	Direct and Potential for Permanent Effects	<p>Negative climate change effects are predicted as:</p> <ul style="list-style-type: none"> Allocating the northern extension area extends the operational life of the quarry and will continue the greenhouse gas emissions associated with its working; 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 	<p>ENV2 – As for ENV1</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>

							<p>could also increase haulage related emissions; and</p> <ul style="list-style-type: none"> • Overburden removal is required in order to access the sand resources. <p>In the longer term, the policy requirement for the extension to deliver a range of environmental benefits could include tree planting for example which would contribute towards offsetting the emissions generated. The potential for longer term, uncertain de-minimus effects are therefore predicted.</p>	
9. To respond and enable adaptation to the inevitable impacts of climate change	?	?	?	Uncertain	Central Durham	Direct and Potential for Permanent Effects	<p>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.</p> <p>Further, detailed hydrogeological assessment would be required to inform the planning stage and any mitigating measures.</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.
10. To protect and enhance biodiversity and geodiversity	×	×	✓	Possible	Central Durham	Direct and Potential for Permanent Effects	<p>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. However, the site is adjacent to Crime Rigg Quarry SSSI (designated for its geological importance) and within</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>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.</p> <p>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 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 requirements within the policy for the extension area to deliver a range of environmental benefits and be accompanied by a high-quality restoration scheme could contribute to longer term biodiversity net gains.</p>	
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							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.	
11. To protect and enhance the quality and character of landscape and townscape	✓/x	✓/x	✓	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,</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 likely to be a residual effect</p>

						<p>screening and phasing. They would be analogous to the character of operations in the existing quarry to the west. The extent to which the engineered landform was legible in general views would be largely governed by the extraction limit in the northwest corner of the site and the deployment of screening mounds in the west and north. There would be unlikely to be significant effects on landscape character during the operational period and post restoration other than at the site level. 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>	
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							The requirements within the policy for the extension area to deliver a range of environmental benefits and be accompanied by a high-quality restoration scheme could contribute to longer term landscape enhancement, whilst recognising that it will be difficult to restore topography to a natural profile.	
12. To protect and enhance cultural heritage & the historic environment	0	0	0	Negligible	Central Durham	Direct and Indirect	<p>There are no scheduled ancient monuments, listed buildings, battlefields or world heritage sites within the vicinity of the site. The nearest listed building is Ludworth Tower located approximately 560m to the south east. The southern edge of the existing quarry lies on the edge of Shadworth Conservation Area. The impacts on the setting of designated and any non-designated heritage assets are unlikely to be greater than at present as impacts are mitigated by spacing and topography. An appraisal of impact on cultural heritage will be required in accordance with standards for EIA development in due course.</p> <p>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</p>	ENV6 – Proposals should be accompanied by an appraisal of impact on cultural heritage along with an archaeological evaluation

							(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 proposed 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 have an</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 take into account the cumulative impacts of minerals working and other activities on the Principal Aquifer.</p> <p>The loss of part of the principal aquifer would be a residual impact of working the proposed extraction area.</p> <p>ENV8 - Through the preparation of a planning application an agricultural land classification statement would be required to assess the quality of the agricultural land.</p>

						<p>adverse effects on surface water sources.</p> <p>The site lies on the Magnesian Limestone Escarpment which is a principal aquifer. The site also lies in a groundwater nitrate vulnerable zone (NVZ). Water management on site will need to monitor and manage both surface water and groundwater. The operator would have to undertake a sound Hydrological Risk Assessment to ensure local private water supply is not derogated in either quality or quantity. Groundwater body fails Water Framework Directive for Nitrate in this area and it is understood that the Environment Agency would not permit any anthropogenic activity which would exacerbate this. Any planning application will need to demonstrate that unacceptable adverse impacts on groundwater quantity and quality do not occur and that suitable mitigation measures are in place or can be implemented. Through the preparation of a planning application detailed hydrological and hydrogeological investigation and risk assessment would be required.</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</p>	
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							3b land. Further assessment of the land quality is likely to be required and the operator may need to demonstrate that the land would be capable of being reinstated to its original or better agricultural land quality. Good management of soils will also be required whilst the site is operational.	
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 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 and use and reduce adverse impacts on communities and the environment	x	x	✓	Probable	South 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 extraction of magnesian limestone where no further provision of this mineral is required. In addition to extending the operation life of the quarry this could increase the adverse impacts of HGV's to communities in the short to medium	As for SOC2

							<p>term and impact negatively on groundwater resources. The policy requirements for the extension area to deliver a range of environmental benefits and be accompanied by a high-quality restoration scheme could contribute to longer term sustainability, although local community benefits are not referenced within the policy as drafted.</p>	
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