Durham County Council

Minerals and Waste Policies and Allocations Document

Sustainability Appraisal Post Adoption Statement

July 2024

Contents

1. Introduction

1.1 Durham County Council adopted the Minerals and Waste Policies and Allocations Document (M&WDPD) on the 17th of July 2024. The M&WDPD forms part of the statutory development plan for County Durham. Along with the County Durham Plan and any 'made' (adopted) Neighbourhood Plans it provides the statutory decision-making framework for the determination of all planning applications for minerals and waste development in County Durham.

1.2 During the preparation of the M&WDPD, the Council was required to carry out a Sustainability Appraisal and a Strategic Environmental Assessment (SEA) of the Plan as it developed. Both the SA and SEA requirements were met through a single integrated process (referred to as SA), the method and findings of which were described in a number of SA Reports published alongside the different versions of the M&WDPD during its development. These included:

Table 1: SA Reports

Title	Year	Document Reference
M&WDPD – Sustainability Appraisal Scoping Report Synopsis	2018	DCC39
Sustainability Appraisal of the M&WDPD Draft Plan	2021	DCC8
Sustainability Appraisal of Draft Plan Appendices	2021	DCC9
Sustainability Appraisal of Draft Plan – Non-Technical Summary	2021	DCC10
County Durham M&WDPD (Publication Draft) Sustainability Appraisal Main Report	2022	DCC20
County Durham M&WDPD (Publication Draft) Sustainability Appraisal Appendices	2022	DCC21
County Durham M&WDPD (Publication Draft) Sustainability Appraisal Non-Technical Summary	2022	DCC22
Sustainability Appraisal and Habitats Regulations Assessment Main Modifications Addendum	2024	DCCEX13

1.3 This statement is the final output of the Sustainability Appraisal (SA) and its incorporated Strategic Environmental Assessment (SEA) process. Regulation 16 of the Environmental Assessment of Plans and Programmes Regulations 2004 sets out the post-adoption requirements summarised as follows:

1.4 As soon as reasonably practicable after the adoption of a plan for which an SA/SEA has been carried out, the planning authority must make a copy of the plan publicly available alongside a copy of the SA Report and an 'SEA adoption statement' and inform the public and consultation bodies about the availability of these. The SEA adoption statement must explain:

- How environmental (and sustainability) considerations have been integrated into the plan
- How the Environmental Report (contained within the SA Report) has been taken into account during preparation of the plan.
- How the opinions expressed by the public and consultation bodies during consultation on the plan and the Environmental/SA Report have been taken into account.
- The reasons for choosing the plan as adopted, in the light of the other reasonable alternatives considered.
- The measures that are to be taken to monitor the significant environmental and sustainability effects of the implementation of the plan.

1.5 This statement is structured according to the requirements as follows:

- **Section 2** summarises how environmental considerations have been integrated into the plan by explaining who carried out the SA and what assessment framework was used.
- **Section 3** summarises how the SA reports were taken into account.
- **Section 4** summarises the consultation opinions provided on the SA and describes what changes were made to the SA process in response to these comments
- **Section 5** describes the reasonable alternatives considered as part of the Plan preparation process and why certain options were chosen.
- **Section 6** describes how the significant sustainability/environmental impacts of the M&WDPD will be monitored.

2. Integration of Environmental and Sustainability Considerations

2.1 Environmental and sustainability considerations were integrated with the M&WDPD plan making process, using the Sustainability Appraisal Framework. Each element of the plan was tested iteratively, against the framework including objectives, reasonable alternatives and policies, along with any significant changes made to

these. The framework included 15 objectives covering social, economic and environmental issues and is provided as follows:

Table 2: SA Framework

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
1. To provide everybody with the opportunity to live in a decent and affordable home	• 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?	• Supply of minerals required to build new homes including affordable homes. • Management of construction and demolition waste linked to new housing provision • Management of household waste linked to new housing • Safeguarding of resources, sites, facilities and infrastructure relative to housing location/demand.
2. To promote strong, secure communities	• 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	• 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

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
	enhancing and promoting the local historic environment?	• Supporting community led waste management schemes • Understanding and responding to the waste management requirements of an ageing population
3. To improve education, training and life-long learning, and maintain a healthy labour market	• 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?	• 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 • Impacts of minerals and waste development on educational facilities
4. To reduce health inequalities and promote healthy lifestyles	• 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?	• 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 through restoration and afteruses.
5. To reduce the need to travel and promote use of sustainable transport options	• Reduce the need for travel/ transport (e.g. by ensuring local needs are met locally or by telecommunication)?	• Encouraging proximity between minerals and waste sites and processing facilities/markets/sources • Provision an improvement of public

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
	• 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? • 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?	access to facilities enabling sustainable waste management • Encouraging more sustainable forms of minerals and waste • transportation • Resources which support • the transition to Electric • Vehicles
6. To alleviate deprivation and poverty	• 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?	• 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	• Safeguard employment or create new	• Safeguarding and creation of direct and indirect jobs in the

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
	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? • Improve the diversity /resilience of the economy? • Help realise the economic potential of the County's natural and historic assets in a sustainable way?	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 • 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
8. To reduce the causes of climate change	• Reduce the demand for energy or increase energy efficiency of buildings, transport or industry? • Minimise greenhouse gas emissions from waste management?	• Reducing emissions from minerals and waste development through use of energy efficient and low and zero carbon design and adoption of efficient plant, fleet and processes.

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
	• Contribute to the development / wider use of renewable energy sources • Contribute to the absorption of carbon dioxide?	• 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 • Opportunities through restoration to increase carbon sequestration • Encouraging the recovery of energy from waste • 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	• Reduce and minimise the risk of / from flooding or coastal erosion, including in areas at risk from rising mine water? • Discourage inappropriate development in areas at risk from flooding? • Ensure that new development does not give rise to flood risk elsewhere? • 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?	• 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 exacerbate these.

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
10. To protect and enhance biodiversity and geodiversity	• 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?	• 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
11. To protect and enhance the quality and character of landscape and townscape	• Protect and enhance designated protected landscape areas (i.e. AONB, Durham Heritage Coast)? • Protect and enhance local landscape character and quality?	• Location and effects of minerals and waste development to landscape character and quality • Potential opportunities for landscape enhancement on restoration

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
	• 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?	• 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	• Protect and enhance the significance of designated and non-designated heritage assets, including their setting? • 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 heritage assets and help make them accessible?	• 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 • 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

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
	• 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?	to waste prevention, reuse and architectural salvage.
13. To protect and improve air, water and soil resources	• 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 and health	• 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 abstraction/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

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
	and avoid exacerbating dryness associated with drought.	
14. To reduce waste and encourage the sustainable and efficient use of materials	• Encourage an increase in the reduction, re-use, recycling and recovery of energy from waste (progress away from landfill and up the "waste hierarchy") • 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?	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 also helps to summarise the effects predicted against all preceding SA objectives in relation to a waste related policy or site assessment.
15. To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	• 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?	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 also helps to summarise the effects predicted against all preceding SA objectives in relation to a waste related policy or site assessment.

Sustainability Appraisal Objectives	Will the Plan…	Relevant Considerations
	• Promote good practice in land reclamation having regard to sustainable after-use appropriate to the locality?	

2.2 The compatibility of each element of the M&WDPD was assessed against the SA Framework using the following scoring system:

Table 3: Assessment Key

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

2.3 The scores against each SA objective for each element of the M&WDPD were recorded in SA matrices that also:

- Identified how likely the predicted effects would occur;
- On what geographic scale effects could occur e.g. settlement scale, ward/parish level, countywide or wider North East region;
- If the effects predicted were direct or indirect and whether they were likely to be temporary or permanent in nature;
- Justification for effects prediction including a commentary on which receptors (e.g. people, economy, biodiversity) are likely to be affected and why; and
- Mitigation measures including; whether negative effects could be prevented/avoided, reduced or offset; whether positive effects could be enhanced or if there any residual effects.

3. How the Sustainability Appraisal Reports were considered

3.1 As stated in section 2, the SA of the M&WDPD was undertaken iteratively, so that an assessment of sustainability and environmental effects was made at each stage of its development. SA reports were produced to describe the predicted sustainability

impacts of the Plan's objectives, reasonable alternatives and policies and to put forward recommendations relating to the most sustainable alternatives and measures to avoid or minimise negative effects and enhance positive ones.

3.2 Officers preparing the M&WDPD took the SA findings and recommendations into account whilst making changes to the Plan and their response to each SA recommendation was documented in the SA reports. The following table provides an overview of the key changes made to the M&WDPD objectives and polices following SA.

Table 4: Key changes made to the M&WDPD following SA

Section / Policy	Key Changes	Outcome
Non Strategic Objectives	Re-ordering of objective 4 in relation to waste recovery and disposal to better reflect the waste hierarchy.	Improved compatibility of the M&WDPD with SA objective 14: To reduce waste and encourage the sustainable and efficient use of materials
MW1: General Criteria for considering Minerals and Waste Development	Greater recognition given in supporting text of the potential impact of minerals and waste development on green infrastructure and where loss / new provision can affect health and wellbeing. Greater recognition is also given in the supporting text to the use of sustainable transport. Policy wording has been strengthened to make it clear that minerals and waste proposals will need to be accompanied by details of intended climate mitigation measures. This is not optional. The supporting text recognises the national and local targets in relation to net zero and signposts to latest best practice guidance on assessing and evaluating greenhouses gas emissions.	Improved compatibility of the M&WDPD with SA objectives: • 4: To reduce health inequalities and promote healthy lifestyles • 5: To reduce the need to travel and promote sustainable transport options • 8: To reduce the causes of climate change
MW2: Mineral Exploration	Not applicable – SA recommendations not accepted	Whilst recommendations were not accepted the justification provided was accepted. No outstanding issues

Section / Policy	Key Changes	Outcome
MW3: Benefits of Minerals Extraction	In response to the SA the clarity of the policy has been improved in relation to the need for effective engagement with communities and that the consideration of environmental benefit is not limited to only the restoration and after-use elements of minerals extraction proposals.	Improved compatibility of the M&WDPD with SA objectives: • 2: To promote strong, secure communities • All environmental SA objectives namely SA objective 5, 8, 9, 10, 11, 12, 13, 14 and 15.
MW4: Noise	Movement of text relating to noise assessments from the supporting text into the policy in order to make this a specific, policy requirement.	Improved compatibility of the M&WDPD with SA objectives: • 2: To promote strong, secure communities • 4: To reduce health inequalities and promote healthy lifestyles • 10: To protect and enhance biodiversity and geodiversity
MW5: Air Quality and Dust	Movement of text relating to dust assessments from the supporting text into the policy in order to make this a specific, policy requirement.	Improved compatibility of the M&WDPD with SA objectives: • 2: To promote strong, secure communities • 4: To reduce health inequalities and promote healthy lifestyles • 10: To protect and enhance biodiversity and geodiversity
MW6: Blasting	Movement of text relating to the provision of a blasting and vibration monitoring scheme from the supporting text into the policy in order to make this a specific, policy requirement.	Improved compatibility of the M&WDPD with SA objectives: • 2: To promote strong, secure communities • 4: To reduce health inequalities and promote healthy lifestyles • 10: To protect and enhance biodiversity and geodiversity
MW7: Traffic and Transport	Acceptance of the recommendation regarding the use of B roads to access the lorry route network and strengthening the emphasis of the policy from 'considering' to maximising the use of sustainable	Improved compatibility of the M&WDPD with SA objectives 2 (communities), 4 (health), 5 (travel), 7 (economy), 8 (climate change), 13 (air, water and soil),

Section / Policy	Key Changes	Outcome
	modes where practical and economic.	14 (resources) and 15 (impact of minerals development).
MW8: Mineral Rail Handling Facilities	Not applicable – SA recommendations not accepted	Whilst recommendations were not accepted the justification provided was accepted. No outstanding issues
MW9: Borrow Pits	In response to SA recommendations, the policy: • Provides greater clarity around the type of project, borrow pits will be considered for; • Places greater emphasis on the role of existing quarries to the economy through re-ordering of criteria; • Goes some way to clarifying what spatial scale will be applied when considering existing quarries in 'the area'; • Improves flexibility given to borrow pit proposals which may be well related to the construction site but require some public highways use to work and restore them; • Ensures that the social and environmental acceptability of working and restoring borrow pits is included within the decision making criteria; and • Improves clarity around the approach to the importation of waste to restore sites. This will only be considered in the event that the use of onsite material provides an unsatisfactory form of restoration	Improved compatibility of the M&WDPD with social SA objectives 2 (communities) and 4 (health) and environmental SA objectives 8 – 15.
MW10: Ancillary Minerals Related Infrastructure	Given that the processing of minerals is likely to have further emissions associated with individual oil or diesel generators additional supporting text was added requiring	Improved compatibility of the M&WDPD with SA Objective 8: To reduce the causes of climate change

Section / Policy	Key Changes	Outcome
	the consideration of grid connections, renewable energy generation and battery storage. Revisions were also made to the wording order i.e. renewable energy generation prior to grid connection to better reflect the energy hierarchy	
MW11: Periodic Review of Mineral Planning Permissions	As a result of the SA the policy ambition has been strengthened to acknowledge that agreeing new conditions as part of the periodic review process should go beyond avoiding unacceptable adverse impacts and rather, should ensure continuously high working and environmental standards	Improved compatibility of the M&WDPD with SA objective 15: to improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment
MW12: Oil and Gas Exploration, Appraisal and Production	In the event the oil and gas development proposals are forthcoming, the SA has ensured that the policy considers the benefits of utilising existing permitted infrastructure if any additional oil or gas fields are discovered. Furthermore, the SA has ensured that the policy takes greater account of local climate emergency targets when determining proposals and the need to ensure that these can demonstrate carbon neutrality.	Improved compatibility of the M&WDPD with SA objectives: • 8: To reduce the causes of climate change; and • 14: To reduce waste and encourage the sustainable and efficient use of materials.
MW13: Transport of Oil and Gas	Following SA, pipeline proposals should demonstrate that the number of pipelines represent the minimum necessary to safely, serve the development and the optimal route in respect of minimising impacts to communities, businesses and the environment.	Improved compatibility of the M&WDPD with SA objectives: • 2: To promote strong, secure communities • 4: To reduce health inequalities and promote healthy lifestyles • 7: To develop a sustainable and diverse economy with high levels of employment • 10: To protect and enhance biodiversity and geodiversity • 11: To protect and enhance the quality and

Section / Policy	Key Changes	Outcome
		character of landscape and townscape • 12: To protect and enhance cultural heritage & the historic environment • 13: To protect and improve air, water and soil resources
MW14: Vein Minerals, Metalliferous Minerals, Lithium and Silica Sand	The SA identified that the policy could give particular regard to opportunities to meet the national demand for lithium locally and by methods which have a lower environmental impact e.g. extraction from geothermal waters could minimise energy use and water resources for example. The policy also ensures, following SA that minerals extracted are used only for the purposes for which their specific qualities are essential in order to ensure the most efficient use of resources.	Improved compatibility of the M&WDPD with SA objectives: • 8. To reduce the causes of climate change; • 14. To reduce waste and encourage the sustainable and efficient use of materials; and • 15: To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment.
MW15: Peat	Following the SA the policy helps to highlight the additional benefits of protecting peat (to water management) and clarifies how the policy works in conjunction with biodiversity policies in the County Durham Plan to consider this valuable resource when making planning decisions.	Improved compatibility of the M&WDPD with SA objectives: • 10: To protect and enhance biodiversity and geodiversity • 13: To protect and improve air, water and soil resources
MW16: Inert Waste 'Other Recovery'	Not applicable – SA recommendations not accepted	Whilst recommendations were not accepted the justification provided was accepted. No outstanding issues
MW17: Inert Waste Disposal via Landfill	Amendments were made to policy wording to signpost applicants to the Environment Agency's landfill technical guidance and to better reflect County Durham's appropriate contribution towards regional net self-sufficiency	Improved compatibility of the M&WDPD with SA objectives: • 5: To reduce the need to travel and promote sustainable transport options; and

Section / Policy	Key Changes	Outcome
		• 13: To protect and improve air, water and soil resources
MW18: Non-Hazardous Waste Landfill	Amendments were made to policy wording to better reflect County Durham's appropriate contribution towards regional net self-sufficiency, encourage full recovery of landfill gas or where this is not technically possible, ensure residual emissions are offset.	Improved compatibility of the M&WDPD with SA objectives: • 5: To reduce the need to travel and promote sustainable transport options; and • 8: To reduce the causes of climate change.
MW19: Water Resources	Improved clarity of policy in respect of its application to the protection of coastal waters	Improved compatibility of the M&WDPD with SA objectives: • 13: To protect and improve air, water and soil resources
MW20: Mineral Site Restoration, Landfill and Landraise	As a result of acceptance of SA recommendations the policy and its supporting text: • Further recognise the links between the after use of sites and their potential to contribute towards addressing climate change • Ensures that the policy does not inadvertently contradict the achievement of biodiversity net gain and reflects the preference for mitigation to be achieved on or near to site; and • Ensures that the need to avoid or minimise environmental effects as a result of undertaking restoration is a specific requirement within the main policy wording to highlight its importance.	Improved compatibility of the M&WDPD with SA objectives: • 8: To reduce the causes of climate change; • 10: To protect and enhance biodiversity and geodiversity; and • 15: To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment
MW21: Site Specific Allocation at Thrislington West Quarry	No changes to policy wording were recommended.	Whilst no change to the policy wording were recommended the SA identified the need for further detailed assessments (namely health, climate change, ecological and

Section / Policy	Key Changes	Outcome
		hydrogeological) to support the planning application stage, overcome any existing uncertainties and ensure that proposals can be mitigated sufficiently.
MW22: Site Specific Allocation, Northern Extension to Crime Rigg Quarry	No changes to policy wording were recommended.	Whilst no change to the policy wording were recommended the SA identified the need for further detailed assessments (namely health, climate change, ecological and hydrogeological) to support the planning application stage, overcome any existing uncertainties and ensure that proposals can be mitigated sufficiently.
MW23: Site Specific Allocation, Inert Waste Disposal at Crime Rigg Quarry	Not applicable – SA recommendations not accepted	Whilst policy wording recommendations were not accepted the justification provided was accepted. The SA also identified the need for further detailed assessments (namely health, climate change, ecological and hydrogeological) to support the planning application stage, overcome any existing uncertainties and ensure that proposals can be mitigated sufficiently.
MW24: Site Specific Allocation, Inert Waste Disposal at Cold Knuckle Quarry	No changes to policy wording were recommended.	Whilst no change to the policy wording were recommended the SA identified the need for further detailed assessments (namely health, climate change, ecological and hydrogeological) to support the planning application stage, overcome any existing uncertainties and ensure that proposals can be mitigated sufficiently.

4. How Consultation Responses on the SA Reports were Considered

4.1 At each stage of the M&WDPD development, an SA report was published alongside the Plan for consultation with the public and the relevant statutory consultation bodies i.e. Historic England, the Environment Agency and Natural England. However, only the statutory consultees provided representation on the SA reports.

4.2 To summarise, Natural England supported the SA. The Environment Agency were pleased that the SA had highlighted risks to groundwater resources and suggested some minor amendments to the SA Framework's decision making criteria. Historic England also suggested some minor revisions to the SA decision making criteria, advised further Historic Impact Assessment (HIA) be undertaken of Shadforth Conservation Area and Ludworth Tower to inform the SA and asked that the SA reconsider how policy provisions (requiring proposals to 'demonstrate that there will be no unacceptable adverse impacts on the environment') are interpreted in the context of less than substantial harm to heritage assets.

4.3 In response:

- Minor revisions were made to the decision-making criteria where considered necessary;
- A HIA was subsequently undertaken which confirmed previous SA assessment outcomes; and
- The SA reports were updated throughout to accurately reflect how policy provisions will apply in respect of impacts that would cause 'less than substantial harm' to heritage assets.

5. Why the M&WDPD was adopted in light of Reasonable Alternatives

5.1 Reasonable alternatives to meeting the M&WDPD objectives were considered by the SA throughout the development of the Plan. The SA considered that there were reasonable alternatives to the sites that could be allocated to provide the required sand and gravel resources to maintain a steady and adequate supply and a seven-year landbank at 2035. Forecasts derived from the Council's Local Aggregate Assessment (April 2022) require that provision is made for a further 5.059 million tonnes of sand and gravel.

5.2 The SA also considered that there were reasonable alternatives to the sites that could be allocated to meet the need for further waste disposal capacity in County Durham over the Plan period to 2035. County Durham Plan Policy 60 (Waste

Management Provision) identified a capacity gap for inert Landfill and Non-Hazardous Landfill of 3,682,800 cubic metres to 2035. This was qualified by the supporting text of the County Durham Plan to only relate to inert landfill. The forecasting suggested that, based on landfill capacity and the closure dates of existing sites, capacity would be exhausted by 2032.

5.3 In considering the issue of inert waste disposal in County Durham, the SA took several factors into account, including Environment Agency Data and the availability of void space which is yet to be created.

Sand and Gravel Alternatives

- **Thrislington West Quarry** - The option covered an area of nearly 18.5 hectares within the eastern part of the operational quarry void, to the west of the A1(M). The potential mineral reserve was estimated at 5.8 million tonnes of basal Permian sand.
- **Crime Rigg Quarry (northern extension)** - The option extended to 9.5 hectares and would form a northern extension to Crime Rigg Quarry. The potential mineral reserve was estimated at 1.775 million tonnes of magnesian limestone and 910,000 tonnes of basal Permian sand.
- **Low Harperley (western extension)** - The extension would extend to approximately 20 hectares and is situated within the floodplain of the River Wear. The potential mineral reserve was estimated at 700,000 tonnes of fluvial sand and gravel.
- **Quarrington North** - The option was commensurate with part of the existing planning permissions at Old Quarrington Quarry, which is not currently operating and requires a scheme of new modern working and restoration conditions. However, the operator advised the Council that they do not intend to work the area underlying national wildlife designations and would apply stand offs from these sites. The operator also advised the Council that working a smaller, revised area could provide 1.7 million tonnes of basal Permian sand (which underlies a reported 9.3 million tonnes of magnesian limestone) and from maps provided of the working area the Council calculated this to be 24 hectares. Given that the operator did not intend to work the full extent of the permission area this was not considered to be a reasonable alternative and the SA assessed the smaller, revised area.

Inert Waste Disposal Alternatives

- **Crime Rigg Quarry** - The option involved the restoration of the eastern part of Crime Rigg quarry by means of infilling with imported inert construction, demolition and excavation waste (CDEW). Three scenarios were assessed in relation to this option namely:
    - **Scenario 1 (Rectify Current Restoration Profile)** – This scenario sought to address issues that the operator have identified with the approved restoration contours for the existing quarry permission. The operator advised that this scenario would result in an increase of approximately 434,000 cubic

metres of capacity and would result in a very minor extension of the landfill towards the eastern quarry void.

- **Scenario 2 (Low Level Restoration within Eastern Void)** - This would result in an increase in capacity in the region of 1,691,000 cubic metres, minus additional engineering works which would reduce the net increase to approximately 1,541,000 cubic metres (Durham County Council estimate).
- **Scenario 3 (Restore to surrounding land levels)** - This option would result in the complete restoration of the quarry void to surrounding land levels This would result in an increase of approximately 3,526,000 cubic metres, minus additional engineering works which would reduce the net increase to approximately 3,226,000 cubic metres (Durham County Council estimate).

- **Cold Knuckle Quarry** – The option would enable the sale of 0.9 million tonnes of magnesian limestone which would otherwise be extracted and used to achieve the previously approved restoration at Cold Knuckle Quarry. Alternatively, the operator wishes to substitute the magnesian limestone with the importation of 400,000 cubic metres of inert waste for use in the reconstruction of the escarpment face and extend the existing landfill operation at Old Quarrington Quarry into Cold Knuckle Quarry.
- **Quarrington North** - In addition to the proposed allocation for basal Permian sand extraction in the northern part of the quarry, the operator has also proposed that the void created could be allocated for inert landfill. The operator has advised the Council that they do not intend to work the area underlying the national wildlife designations and would apply stand offs from these sites. The operator has also advised the Council that the void associated with working a smaller, revised area could accommodate up to 4.93 million cubic metres of inert waste and from maps provided on the working/disposal area the Council have calculated this to be 24 hectares. Given that the operator did not intend to extract and infill the full extent of the permission area this was not considered to be a reasonable alternative and the SA assessed the smaller, revised area.

Outcome Following Assessment of Reasonable Alternatives: Sand and Gravel

5.4 In relation to the sand and gravel alternatives, the SA was able to rank them as follows in terms of their sustainability:

1. Thrislington West Quarry
2. Crime Rigg (northern extension)
3. Low Harperley (western extension)
4. Quarrington North

5.5 Consideration was given to whether only Thrislington West Quarry should be allocated due to its quantity of reported sand reserves. However, this was not considered to be a reasonable approach as should only one site be allocated, there will be a greater risk that continuity of supply could be impeded for site specific reasons, affecting the Council's ability to maintain the sand and gravel landbank as required by the NPP5. In

addition, the NPPF also requires Minerals Planning Authorities to ensure that large landbanks bound up in very few sites do not stifle competition.

5.6 The SA therefore recommended the allocation of Thrislington West Quarry and a northern extension to Crime Rigg in the M&WDPD. These sites were selected for allocation and justification is provided as follows:

Thrislington West Quarry

- Without an allocation Thrislington West Quarry will not be able to make a steady and adequate contribution to sand and gravel supply after 2025;
- The site should be prioritised for an allocation as it would be more beneficial than other sites to ensuring the steady and adequate supply of sand and gravel and the maintenance of productive capacity;
- Without further permitted reserves the mineral extraction at Thrislington Quarry West would cease, productive capacity would be lost and permitted reserves would become concentrated within a smaller number of sites;
- The proposed allocation would contribute to meeting the identified need for both sand and gravel to 2035;
- Its permitted reserves would contribute to the maintenance of a minimum seven-year sand and gravel landbank in 2035; and
- Sales from the site would provide up to 300,000 tonnes of sand per annum and would thereby contribute to a steady and adequate supply of sand and gravel.

Crime Rigg (Northern Extension)

- Without further permitted reserves the mineral extraction at Crime Rigg Quarry would cease, productive capacity would be lost and permitted reserves would become concentrated within a smaller number of sites;
- The proposed allocation would contribute to both meeting the identified need for sand and gravel to 2035;
- Its permitted reserves would also contribute to the maintenance of a minimum seven-year sand and gravel landbank at 2035;
- Sales from the site would provide up to 40,000 tonnes of sand per annum and would thereby contributing to a steady and adequate supply of sand and gravel; and
- Given the extent of the crushed rock permitted reserves and crushed rock landbank the working of the overlying magnesian limestone is not needed but would be unavoidable in order to recover the sand. Whilst not causing undue harm to the crushed rock landbank the working of the overlying magnesian limestone would however have the benefit of reinforcing the significant existing capacity of County Durham's crushed rock sites to maintain a steady and adequate supply of crushed rock aggregate.

Outcome Following Assessment of Reasonable Alternatives: Inert Waste Disposal

5.7 In relation to the inert waste disposal alternatives, the SA found Crime Rigg Quarry (Scenario 2) to be the most sustainable followed by Cold Knuckle Quarry. The SA recommended that these options should be allocated in the M&WDPD to contribute towards addressing the identified capacity gap. Cold Knuckle Quarry was selected for allocation. However, in relation to Crime Rigg Quarry the M&WDPD has opted for a flexible approach which could allow proposals for either Scenario 2 or Scenario 3 to come forward over the Plan period.

5.8 The SA advised that Scenario 3 should not be considered further for allocation unless justification can be provided that the benefits of allocating it outweigh the potential harm to Crime Rigg Quarry (geological) SSSI. The Spatial Policy Team justified their selection of this option as Natural England have advised the Council through correspondence that harm can potentially be avoided through compensatory measures, if it can be demonstrated that the northern extension to Crime Rigg Quarry (as selected for allocation in the M&WDPD) can become the replacement SSSI whilst at the same time demonstrating that comparable special interest features will be exposed during the transition period. Spatial Policy advised that the policy would be worded accordingly to ensure that harm would be avoided. The SA accepted this justification and recognised that subsequent policy wording and assessment of it would be key.

5.9 The SA concluded that the implementation of Policy M22 (Site Specific Allocation, northern extension to Crime Rigg Quarry) and Policy W23 (Site Specific Allocation Inert Waste Disposal at Crime Rigg Quarry) should ensure that significant adverse effects to Crime Rigg SSSI are avoided.

6. Monitoring Significant Effects of the M&WDPD

6.1 It is a requirement of the SEA Directive to establish how the significant sustainability effects of implementing the Plan will be monitored. However, as earlier government guidance on SEA (ODPM et al, 2005) notes, it is not necessary to monitor everything, or monitor an effect indefinitely. Instead, monitoring needs to be focused on significant sustainability effects e.g., those that:

- Indicate a likely breach of international, national or local legislation, recognised guidelines or standards;
- May give rise to irreversible damage, with a view to identifying trends before such damage is caused; and
- Where there was uncertainty in the SA, and where monitoring would enable preventative or mitigation measures to be taken.

6.2 In addition to the potential impacts to groundwater key areas of uncertainty identified by the SA included:

- Whether a replacement geological SSSI at Crime Rigg Quarry can be created if a proposal for high level inert waste proposal is forthcoming
- Quantity of landfill capacity required beyond the Plan period; and
- Actual impacts of site allocations on health and wellbeing - these cannot be predicted with any greater certainty until detailed health impact assessments are undertaken to support planning applications.

6.3 Furthermore, whilst it is anticipated that traffic levels from the proposed site allocations will be commensurate with existing operations, it is considered beneficial to monitor this to ensure impacts to communities do not exceed existing levels. It is also considered beneficial to monitor the climate impact of proposals and use of sustainable modes for the transportation of minerals and waste to ensure that the positive effects predicted occur as intended. The following table sets out the monitoring proposals against relevant SA objectives.

Table 5: Monitoring Proposed

Relevant SA objective	Proposed Indicator	Source(s)
To promote strong, secure communities	• Existing consented vehicle limits at Thrislington Quarry, Crime Rigg Quarry and Cold Knuckle Quarry • Vehicle limits permitted following the grant of planning permission	Durham County Council: • Existing planning permissions and conditions • New planning permissions and conditions
To reduce health inequalities and promote healthy lifestyles	• Existing consented vehicle limits at Thrislington Quarry, Crime Rigg Quarry and Cold Knuckle Quarry • Vehicle limits permitted following the grant of planning permission • Implementation of measures, where required to minimise noise, vibration and emissions to air	Durham County Council: • Existing planning permissions and conditions • New planning permissions and conditions • Annual Site Monitoring Reports

Relevant SA objective	Proposed Indicator	Source(s)
	associated with allocated sites • Any planning permissions given contrary to Health and Safety Executive advice	
To reduce the need to travel and promote use of sustainable transport options	• Applications accompanied by a Transport Assessment or Statement that consider scope for sustainable modes and state that they will implement viable opportunities	Transport information submitted to the Council in support of planning applications
To reduce the causes of climate change	• Applications accompanied by an assessment of greenhouse gas emissions where EIA development • County Durham greenhouse gas emission data • Number of applications permitted that significantly affect County Durham's ability to meet the challenge of climate change (target is 0%)	• Greenhouse gas information submitted to the Council in support of planning applications Environmental Statement) • Government statistics: UK local authority and regional greenhouse gas emissions • Durham County Council: Development Management Teams
To respond and enable adaptation to the inevitable impacts of climate change	• Implementation of measures where required, to minimise impacts to groundwater resources associated with allocated sites	• Site Annual Monitoring Reports
To protect and enhance biodiversity and geodiversity	• Implementation of measures where required, to ensure that a replacement geological SSSI can	• Site Annual Monitoring Reports

Relevant SA objective	Proposed Indicator	Source(s)
	be phased and created accordingly	
To protect and improve air water and soil resources	• Implementation of measures, where required, to minimise impacts to groundwater resources associated with allocated sites	• Site Annual Monitoring Reports
To improve the sustainability of minerals extraction and use and reduce adverse impacts on communities and the environment	• All indicators as outlined above	• As outlined above
To reduce waste and encourage the sustainable and efficient use of materials	• Landfill capacity	• Annual Monitoring Report