



www.landuse.co.uk

Sustainability Appraisal of the Draft Herefordshire Minerals and Waste Local Plan

Appendices

Final Report
Prepared by LUC
December 2018

Project Title: SA of the Draft Herefordshire Minerals and Waste Local Plan

Client: Herefordshire Council

Version	Date	Version Details	Prepared by	Checked by	Approved by
V1.0	07/09/18	Draft Report	Donald MacArthur Natalie Collins Conor Wells Willeke Geurts Melissa Mc Ginley	Melissa Mc Ginley Taran Livingston	Taran Livingston
V2.0	16/11/18	Final Draft Report	Willeke Geurts Melissa Mc Ginley	Taran Livingston	Taran Livingston
V3.0	11/11/18	Final Report	Melissa Mc Ginley	Taran Livingston	Taran Livingston



www.landuse.co.uk

Sustainability Appraisal of the Draft Herefordshire Minerals and Waste Local Plan

Appendices

Final Report
Prepared by LUC
December 2018

Planning & EIA
Design
Landscape Planning
Landscape Management
Ecology
GIS & Visualisation

LUC EDINBURGH
28 Stafford Street
Edinburgh
EH3 7BD
T +44 (0)131 202 1616
edinburgh@landuse.co.uk

Offices also in:
Bristol
Glasgow
Lancaster
London
Manchester



Land Use Consultants Ltd
Registered in England
Registered number: 2549296
Registered Office:
43 Chalton Street
London NW1 1JD
LUC uses 100% recycled paper

Contents

Appendix 1	1
Review of relevant plans, programmes and environmental protection objectives	1
Appendix 2	54
Maps	54
Appendix 3	69
Baseline Information	69
Appendix 4	98
Audit trail of site options	98
Appendix 5	109
Assumptions used in the SA of mineral and waste site options	109
Appendix 6	123
Detailed SA matrices for the mineral site options	123
Appendix 7	202
Detailed SA matrices for the waste site options	202
Appendix 8	251
Detailed SA matrices for the Draft Herefordshire Minerals and Waste Local Plan policies	251
Vision	252
Strategic Objectives	255
Appendix 9	349
Consultation Responses received on the SA Scoping Report	349

Tables

Table 1 Key international plans, programmes and environmental protection objectives	2
Table 2 Key national plans, programmes and environmental protection objectives	13
Table 3 Key local plans, programmes and environmental protection objectives	35
Table 4 Quarries in Herefordshire	71
Table 5 Forecast for future sand and gravel demand	72
Table 6 Main findings from selected forecasts of future crushed rock demand, assuming current level of import and self-sufficiency	73
Table 7 LACW arisings in Herefordshire 2011-March 2017 (tonnes)	77
Table 8 Summary of LACW forecasts for years 2020, 2025, 2030 and 2035, based on 2016 data (rounded to nearest 1,000 tonnes)	77
Table 9 Estimated LACW management requirement over the plan period, and up to 2035	77
Table 10 Estimated C&I waste arisings, Herefordshire, 2013 to 2016	78

Table 11 Summary of C&I waste forecasts for years 2020, 2025, 2030 and 2035, based on 2016 data (rounded to nearest 1,000 tonnes)	78
Table 12 Estimated C&I waste management requirement over the plan period, and up to 2035	79
Table 13 Summary of CD&E waste forecasts for years 2020, 2025, 2030 and 2035, based on 2016 data (rounded to nearest 1,000 tonnes)	80
Table 14 Estimated CD&E waste management requirement over the plan period, and up to 2035 (assuming a 90% recovery rate)	80
Table 15 Risks and opportunities arising from climate change in the UK	82
Table 16 Source of CO ₂ Emissions in Herefordshire per Sector (2005-2016)	83
Table 17 Energy Consumption in Herefordshire per Sector (2005-2015)	83
Table 18 Key environmental/threats affecting European Sites	84
Table 19 Peak river flow allowances for the River Severn Basin	86
Table 20 Landscape sensitivity analysis of Hereford	90
Table 21 Bus operators and main services in Herefordshire	96

Figures

Figure 1 Location	55
Figure 2 Resources	56
Figure 3 Biodiversity and Geodiversity	57
Figure 4 Air Quality	58
Figure 5 Hydrology	59
Figure 6 Soil - Agricultural Land Classification Post 1988	60
Figure 7 Soil - Agricultural Land Classification Pre 1988	61
Figure 8 Heritage Designations	62
Figure 9 Landscape Designations	63
Figure 10 Index of Multiple Deprivation	64
Figure 11 Services	65
Figure 12 Recreation	66
Figure 13 Transport Links	67

Appendix 1

Review of relevant plans, programmes and environmental protection objectives

Table 1 Key international plans, programmes and environmental protection objectives

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
INTERNATIONAL				
International				
<i>IPCC's Fifth Assessment Report on Climate Change</i> (IPCC, 2014) ¹	To limit and/or reduce all greenhouse gas emissions which contribute to climate change	None	Plan should support reduction in emissions of greenhouse gases.	Include sustainability objectives to support reduction in emissions of greenhouse gases.
<i>Johannesburg Declaration on Sustainable Development</i> (2002)	Commitment to building a humane, equitable and caring global society aware of the need for human dignity for all. Areas of focus include: <ul style="list-style-type: none"> • Sustainable consumption and production patterns. • Accelerate shift towards sustainable consumption and production – 10 year framework of programmed of action. • Reverse trend in loss of natural resources. • Renewable energy and energy efficiency. • Urgently and substantially increase Global share of renewable energy. • Significantly reduce the rate of biodiversity loss by 2010. 	To promote greater resource efficiency, increase energy efficiency and develop new technology for renewable energy.	Allocate sites and develop policies that take account of the Declaration.	Include sustainability objectives to enhance the natural environment and promote renewable energy and energy/resource efficiency.
<i>Aarhus Convention</i>	Established a number of rights of the public	No targets or indicators.	Allocate sites and	Ensure that the

¹ IPCC (2014) Fifth Assessment Report on Climate Change

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
(1998)	<p>with regard to the environment. Local authorities should provide for:</p> <ul style="list-style-type: none"> • The right of everyone to receive environmental information. • The right to participate from an early stage in environmental decision making. • The right to challenge in a court of law public decisions that have been made without respecting the two rights above or environmental law in general. 		develop policies that take account of the Convention.	public are involved and consulted at all relevant stages of SA production.
<i>Bern Convention</i> (1979)	The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) was adopted in Bern, Switzerland in 1979, and came into force in 1982. The principal aims of the Convention are to ensure conservation and protection of wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species) listed in Appendix III. To this end the Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1,000 wild animal species.	No targets or indicators.	Allocate sites and develop policies that take account of the Convention.	Include sustainability objectives to protect and enhance biodiversity .
<i>Bonn Convention on the Conservation of Migratory Species of Wild Animals</i> (1979)	The Convention is an intergovernmental treaty under the United Nations Environment Programme. The aim is for contracting parties to work together to conserve terrestrial,	No targets or indicators.	Allocate sites and develop policies that take account of the Convention.	The SA Framework should include objectives protecting

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>marine and avian migratory species and their habitats (on a global scale) by providing strict protection for endangered migratory species.</p> <p>The overarching objectives set for the Parties are:</p> <ul style="list-style-type: none"> • Promote, co-operate in and support research relating to migratory species • Endeavour to provide immediate protection for migratory species included in Appendix I • Endeavour to conclude Agreements covering the conservation and management of migratory species included in Appendix II 			biodiversity.
<i>Ramsar Convention – Convention on Wetlands of International Importance</i> (1971)	To promote the conservation and wise use of all wetlands through local, regional and national actions and international co-operation, as a contribution towards achieving sustainable development throughout the world.	The number of Ramsar sites being designated in the UK.	Plan should promote the conservation and make wise use of all wetland areas.	Consider inclusion of objectives which aim to promote conservation and wise use of wetland areas.
<i>UNESCO World Heritage Convention</i> (1972)	<p>The 1972 World Heritage Convention links together in a single document the concepts of nature conservation and the preservation of cultural properties. The Convention recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two.</p> <p>The Convention defines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List. It also</p>	No targets or indicators of relevance.	Plan should promote the conservation and enhancement of cultural and natural heritage assets.	The SA Framework should include objectives relating to the conservation and enhancement of cultural heritage and natural heritage.

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them. By signing the Convention, each country pledged to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage.			
<i>Paris Agreement</i> (United Nations 2015)	The main aim of the Paris Agreement centres on keeping global temperature rise this century below 2°C above preindustrial levels. Frameworks are to be put in place to help achieve these goals.	Under Article 2: to hold “ <i>the increase in global average temperature to well below 2 degrees C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 degrees C above pre-industrial levels</i> ” and to increase “ <i>the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions in a manner that does not threaten food production</i> ”. Under Article 5: “ <i>Parties should take action to conserve and enhance as appropriate, sinks and reservoirs of greenhouse gases...including forests</i> ”.	While the commitments are likely to filter through national policy / strategies, this indicates the direction of travel regarding climate change policy and the emphasis on mitigation and adaptation measures. Plan should support the delivery of these commitments.	The SA Framework should include objectives to adapt and mitigate climate change.
EU Directives				
<i>SEA Directive 2001</i> Directive 2001/42/EC on the assessment of	Provide for a high level of protection of the environment and contribute to the integration of environmental considerations into the	The Directive must be applied to plans or programmes whose formal preparation begins after	Allocate sites and develop policies that take account of the	Requirements of the SEA Directive must be met in

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
the effects of certain plans and programmes on the environment	preparation and adoption of plans and programmes with a view to promoting sustainable development.	21 July 2004 and to those already in preparation by that date.	Directive as well as more detailed policies derived from the Directive at the national level.	Sustainability Appraisals.
<p><i>The Waste Framework Directive 2008</i></p> <p>Directive 2008/98/EC on waste</p>	Prevention or reduction of waste production and its harmfulness. The recovery of waste by means of recycling, re-use or reclamation. Recovery or disposal of waste without endangering human health and without using processes that could harm the environment.	Sets targets for recycling rates: 50% recycling rates for household waste and 70% for C&D waste by 2020.	Plan should reflect the waste hierarchy. Plan should make provision for sufficient recycling facilities to ensure targets can be met and encourage the use of secondary aggregates.	Consider objectives to provide an adequate supply of suitable waste facilities, to reduce waste , and to reduce waste sent to landfill .
<p><i>The Landfill Directive 1999</i></p> <p>Directive 99/31/EC on the landfill of waste</p>	Prevent or reduce negative effects on the environment from the landfilling of waste by introducing stringent technical requirements for waste and landfills.	Reduce the amount of biodegradable waste sent to landfill to 75% of the 1995 level by 2010. Reduce this to 50% in 2013 and 35% by 2020.	Allocate sites and develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF.	Include sustainability objectives to increase recycling and reduce the amount of waste .
<p><i>EU Management of Waste from Extractive Industries</i></p> <p>(2006/21/EC)</p>	<p>The purpose of the Directive is to prevent water and soil pollution from the deposition of waste into heaps or ponds and puts emphasis on the long-term stability of waste facilities to help avoid major accidents.</p> <p>The main elements of the Directive are:</p>	No targets or indicators.	Plan should clearly recognise that some minerals development can cause pollution and harm human health where they produce dangerous	Include sustainability objectives that encourage recycling and the prudent use of natural resources and the protection

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<ul style="list-style-type: none"> • Conditions for operating permits. • General obligations concerning waste management. • The obligation to characterise waste before disposing of it or treating it. • Measures to ensure the safety of waste management facilities. • A requirement to draw up closure plans. • An obligation to provide for an appropriate level of financial security. 		substances.	of the environment. Also promote a reduction in water and soil pollution.
<p><i>The Industrial Emissions Directive 2010</i></p> <p>Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)</p>	<p>This Directive lays down rules on integrated prevention and control of pollution arising from industrial activities. It also lays down rules designed to prevent or, where that is not practicable, to reduce emissions into air, water and land and to prevent the generation of waste, in order to achieve a high level of protection of the environment taken as a whole.</p>	<p>The Directive sets emission limit values for substances that are harmful to air or water.</p>	<p>Allocate sites and develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF.</p>	<p>Include sustainability objective for reducing pollution.</p>
<p><i>The Packaging and Packaging Waste Directive 1994</i></p> <p>Directive 94/62/EC on packaging and packaging waste</p>	<p>Harmonise the packaging waste system of Member States. Reduce the environmental impact of packaging waste.</p>	<p>By June 2001 at least 50% by weight of packaging waste should have been recovered, at least 25% by weight of the totality of packaging materials contained in packaging waste to be recycled with a minimum of 15% by weight for each packaging material.</p>	<p>Allocate sites and develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF.</p>	<p>Include sustainability objectives to minimise the environmental impact of waste and promote recycling.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<p><i>The Birds Directive 2009</i></p> <p>Directive 2009/147/EC is a codified version of Directive 79/409/EEC as amended</p>	<p>The preservation, maintenance, and re-establishment of biotopes and habitats shall include the following measures:</p> <ul style="list-style-type: none"> • Creation of protected areas. • Upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones. • Re-establishment of destroyed biotopes. • Creation of biotopes. 	<p>No targets or indicators.</p>	<p>Sites and policies should make sure that the upkeep of recognised habitats is maintained and not damaged from development.</p> <p>Avoid pollution or deterioration of habitats or any other disturbances effecting birds.</p>	<p>Include sustainability objectives for the protection of birds.</p>
<p><i>The Habitats Directive 1992</i></p> <p>Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora</p>	<p>Promote the maintenance of biodiversity taking account of economic, social, cultural and regional requirements. Conservation of natural habitats and maintain landscape features of importance to wildlife and fauna.</p>	<p>No targets or indicators.</p>	<p>Allocate sites and develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF.</p>	<p>Include sustainability objectives to protect and maintain the natural environment and important landscape features.</p>
<p><i>The Water Framework Directive 2000</i></p> <p>Directive 2000/60/EC establishing a framework for community action in the field of water policy</p>	<p>Protection of inland surface waters, transitional waters, coastal waters and groundwater.</p>	<p>No targets or indicators.</p>	<p>Develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF.</p>	<p>Include sustainability objectives to protect and minimise the impact on water quality.</p>
<p><i>The Floods Directive</i></p>	<p>Establish a framework for the assessment and</p>	<p>Preliminary Flood Risk</p>	<p>Allocate sites and</p>	<p>Include sustainability</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<p>2007</p> <p>Directive 2007/60/EC on the assessment and management of flood risks</p>	<p>management of flood risks, aiming at the reduction of the adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods.</p>	<p>Assessments to be completed by December 2011. Flood Hazard Maps and Flood Risk Maps to be completed by December 2013. Flood Risk Management Plans to be completed by December 2015.</p>	<p>develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF.</p>	<p>objectives that relate to flood management and reduction of risk.</p>
<p>The Drinking Water Directive 1998</p> <p>Directive 98/83/EC on the quality of water intended for human consumption</p>	<p>Protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.</p>	<p>Member States must set values for water intended for human consumption.</p>	<p>Allocate sites and develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF.</p>	<p>Include sustainability objectives to protect and enhance water quality.</p>
<p>The Bathing Water Quality Directive 2006</p> <p>Directive 2006/7/EC on the quality of water intended for human consumption</p>	<p>The revised Bathing Water Directive entered into force in March 2006. The overall objective of the revised Directive remains the protection of public health whilst bathing.</p>	<p>There is a requirement for all bathing waters to be classed as 'sufficient' by 2015.</p>	<p>Plan must adhere to the requirements of the Directive, as appropriate.</p>	<p>Sustainability objectives should reflect the Directive requirements and protect the quality of bathing waters.</p>
<p>The Air Quality Directive 2008</p> <p>Directive 2008/50/EC on ambient air quality and cleaner air for Europe</p>	<p>Avoid, prevent and reduce harmful effects of ambient noise pollution on human health and the environment.</p>	<p>No targets or indicators.</p>	<p>Allocate sites and develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF.</p>	<p>Include sustainability objectives to maintain and enhance air quality.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<p><i>The Noise Directive 2000/14/EC</i></p>	<ul style="list-style-type: none"> • Monitor the environmental problem by drawing up strategic noise maps. • Informing and consulting the public about noise exposure, its effects and the measures considered to address noise. • Addressing local noise issues by requiring authorities to draw up action Plans to reduce noise where necessary and maintain environmental noise where it is good. 	<p>No targets or indicators.</p>	<p>Allocate sites and develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF.</p>	<p>Include sustainability objectives to reduce noise pollution.</p>
EUROPEAN				
<p><i>EU Seventh Environmental Action Plan to 2020</i></p>	<p>The EU's objectives in implementing the programme are:</p> <p>(a) to protect, conserve and enhance the Union's natural capital;</p> <p>(b) to turn the Union into a resource-efficient, green and competitive low-carbon economy;</p> <p>(c) to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing;</p> <p>(d) to maximise the benefits of the Union's environment legislation;</p> <p>(e) to improve the evidence base for environment policy;</p> <p>(f) to secure investment for environment and climate policy and get the prices right;</p> <p>(g) to improve environmental integration and</p>	<p>No targets or indicators.</p>	<p>Allocate sites and develop policies that take account of the Action Plan as well as more detailed policies contained in the NPPF.</p>	<p>Include sustainability objectives to protect and enhance the natural environment and promote energy efficiency.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>policy coherence;</p> <p>(h) to enhance the sustainability of the Union's cities;</p> <p>(i) to increase the Union's effectiveness in confronting regional and global environmental challenges.</p>			
<i>EU Biodiversity Strategy to 2020</i>	<p>The European Commission has adopted an ambitious new strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. The six targets cover:</p> <ul style="list-style-type: none"> • Full implementation of EU nature legislation to protect biodiversity • Better protection for ecosystems, and more use of green infrastructure • More sustainable agriculture and forestry • Better management of fish stocks • Tighter controls on invasive alien species • A bigger EU contribution to averting global biodiversity loss 	<p>Biodiversity loss is an enormous challenge in the EU, with around one in four species currently threatened with extinction and 88% of fish stocks over-exploited or significantly depleted.</p>	<p>Allocate sites and develop policies that take account of the Strategy as well as more detailed policies contained in the NPPF.</p>	<p>Include sustainability objectives to value, protect and enhance biodiversity.</p>
<i>European Spatial Development Perspective (1999)</i>	<p>Economic and social cohesion across the community. Conservation of natural resources and cultural heritage. Balanced competitiveness between different tiers of</p>	<p>No targets or indicators.</p>	<p>Allocate sites and develop policies that take account of the Plan as well as more</p>	<p>Include sustainability objectives to conserve natural resources and</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	government.		detailed policies contained in the NPPF.	cultural heritage.
<i>European Landscape Convention</i> (Florence, 2002)	The convention promotes landscape protection, management and planning.	No indicators or targets.	Allocate sites and develop policies that take account of the Convention as well as more detailed policies contained in the NPPF.	Include sustainability objectives to protect, manage and plan for landscape provision.
<i>European Convention on the Protection of the Archaeological Heritage</i> (Valletta, 1992) <i>Revision of the 1985 Granada Convention</i>	Protection of the archaeological heritage, including any physical evidence of the human past that can be investigated archaeologically both on land and underwater. Creation of archaeological reserves and conservation of excavated sites.	No indicators or targets.	Allocate sites and develop policies that take account of the Convention as well as more detailed policies contained in the NPPF.	Include sustainability objectives to protect the archaeological heritage.
<i>The Convention for the Protection of the Architectural Heritage of Europe</i> (Granada, 1985)	The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties.	No indicators or targets.	Allocate sites and develop policies that take account of the Convention as well as more detailed policies contained in the NPPF.	Include sustainability objectives to protect archaeological heritage.

Table 2 Key national plans, programmes and environmental protection objectives

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
NATIONAL				
National Policies and Strategies				
MHCLG (2018) <i>National Planning Policy Framework</i>	Presumption in favour of sustainable development. Delivering sustainable development by:	No targets or indicators of relevance.	Development plan has a statutory status as the starting point for decision making.	Sustainability appraisal should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors .
	Building a strong, competitive economy.	No targets or indicators of relevance.	Set out clear economic visions for that particular area.	Include a sustainability objective relating to strengthening the economy .
	Promoting healthy and safe communities.	No targets or indicators of relevance.	Promote safe and accessible environments with a high quality of life and community cohesion.	Include a sustainability objective relating to health and well-being .
	Promoting sustainable transport.	No targets or indicators of relevance.	To implement sustainable transport modes depending on nature/location of the site, to reduce the need for major transport	Include a sustainability objective relating to sustainable transport .

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
			infrastructure.	
	Making effective use of land.	No targets or indicators of relevance.	Promote an effective use of land while safeguarding and improving the environment and ensuring safe and healthy living conditions.	Include a sustainability objective relating to the effective use of land .
	Achieving well-designed places.	No targets or indicators of relevance.	Establish a strong sense of place to live, work and visit.	Include a sustainability objective relating to good design and creating well designed places .
	Meeting the challenge of climate change, flooding, and coastal change.	No targets or indicators.	Use opportunities offered by new development to reduce causes/impacts of flooding.	Include a sustainability objective relating to climate change mitigation and adaption .
	Conserving and enhancing the natural environment.	No targets or indicators.	Recognise the wider benefits of biodiversity.	Include a sustainability objective relating to the conservation and enhancement of the natural environment .
	Conserving and enhancing the historic environment	No targets or indicators.	Sustain and enhance heritage assets and put them to viable uses consistent with their conservation.	Include a sustainability objective relating to the conservation of historic features .

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	Facilitating the use of sustainable materials.	No targets or indicators.	Encourage prior extraction of minerals where practicable and environmentally feasible.	Include a sustainability objective relating to sustainable mineral extraction .
DCLG (2014) <i>National Planning Policy for Waste</i>	<p>The National Planning Policy for Waste was adopted in October 2014 and sets out the need for local authorities to:</p> <ul style="list-style-type: none"> • Prepare local plans using a robust proportionate evidence base • Identify need for waste management facilities • Identify suitable sites and areas • Determine planning applications • Monitor and report: <ul style="list-style-type: none"> ○ Take up in allocated sites and areas ○ Existing stock and changes in the stock of waste management facilities. ○ The amount of waste recycled, recovered or going for disposal. 	No targets or indicators.	Allocate sites and develop policies that take account of the National Planning Policy for Waste.	Include a sustainability objective relating to sustainable waste management .
DEFRA (2013) <i>National Waste Management Plan for England</i>	Provides an analysis of the current waste management situation in England, and evaluates how it will support implementation of the objectives and provisions of the	No targets or indicators.	Allocate sites and develop policies that take account of the National Waste	Include a sustainability objective relating to sustainable waste management .

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>revised Waste Framework Directive.</p> <p>At the local authority level, the Waste Management Plan notes that waste planning authorities (county and unitary authorities in England) are responsible for producing local waste management plans that cover the land use planning aspect of waste management for their areas.</p>		Management Plan.	
DCLG (2014) <i>Planning Practice Guidance on Minerals</i>	Guidance on mineral safeguarding, mineral extraction, restoration and aftercare of mineral sites, and planning for aggregate and industrial minerals, hydrocarbon and coal extraction.	No targets or indicators.	<p>Mineral planning authorities are expected to prepare Local Aggregate Assessments, to assess the demand for and supply of aggregates. Also required to define Mineral Safeguarding Areas and Mineral Consultation Areas.</p> <p>Allocate sites and develop policies that take account of the guidance document.</p>	Include SA objectives relating to sustainable mineral extraction .
DCLG (2015) <i>Planning Practice Guidance on Waste</i>	Provides guidance to waste planning authorities. States that local plans should identify sufficient opportunities to meet the identified needs of an area for the management of waste, aiming to drive waste management up the Waste Hierarchy. Local Plans should ensure that suitable sites and areas for the provisions of waste	No targets or indicators.	Allocate sites and develop policies that take account of the guidance document.	Include SA objectives that relate to sustainable waste management .

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	management facilities are identified in appropriate locations.			
DCLG (2015) <i>Planning Practice Guidance on water supply, wastewater and water quality</i>	Provides guidance on the delivery of adequate water and wastewater infrastructure.	No targets or indicators of relevance.	Allocate sites and develop policies that take account of the guidance document.	Include SA objectives that relate to sustainable water and wastewater management.
Planning Practice Guidance (2013 onwards)	<p>The PPG documents provide guidance on the interpretation and implementation of the NPPF.</p> <p>Of particular relevance are:</p> <ul style="list-style-type: none"> • DCLG (2014) Planning Practice Guidance on air quality • DCLG (2014) Planning Practice Guidance on climate change • DCLG (2014) Planning Practice Guidance on conserving and enhancing the historic environment • DCLG (2014) Planning Practice Guidance on ensuring the vitality of town centres • DCLG (2014) Planning Practice Guidance on flood risk and coastal change • DCLG (2017) Planning Practice Guidance on health and wellbeing • DCLG (2018) Planning Practice 	No targets or indicators of relevance.	Plan needs to be produced in accordance with the guidance outline in the NPPG.	The SA should be prepared in line with the NPPG.

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>Guidance on local plans</p> <ul style="list-style-type: none"> • DCLG (2016) Planning Practice Guidance on the natural environment • DCLG (2014) Planning Practice Guidance on noise • DCLG (2014) Planning Practice Guidance on light pollution • DCLG (2014) Planning Practice Guidance on open space, sports and recreation facilities, public rights of way and local green space • DCLG (2016) Planning Practice Guidance on rural housing • DCLG (2015) Planning Practice Guidance on renewable and low carbon energy 			
DEFRA (2012) <i>National Policy Statement for Waste Water</i>	Sets out the proposed policy framework to inform planning decisions on applications for large waste water infrastructure projects.	No targets or indicators.	Allocate sites and develop policies that take account of the National Policy Statement for Waste Water.	Include SA objectives that relate to sustainable waste management and the protection of water quality .
DEFRA (2013) <i>National Policy Statement for Hazardous Waste</i>	Sets out the strategic need and justification of Government policy for the provision of national significant infrastructure for the management of hazardous waste.	No targets or indicators.	Allocate sites and develop policies that take account of the National Policy Statement for	Include SA objectives that relate to sustainable waste management which will include hazardous

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
			Hazardous Waste.	waste.
<p>HM Government (2013) <i>Waste prevention programme for England: Prevention is better than cure – The role of waste prevention in moving to a more resource efficient economy</i></p>	<p>The aim of the Programme is to improve the environment and protect human health by supporting a resource efficient economy, reducing the quantity and impact of waste produced whilst promoting sustainable economic growth:</p> <ul style="list-style-type: none"> encourage businesses to contribute to a more sustainable economy by building waste reduction into design, offering alternative business models and delivering new and improved products and services; encourage a culture of valuing resources by making it easier for people and businesses to find out how to reduce their waste, to use products for longer, repair broken items, and enable reuse of items by others; help businesses recognise and act upon potential savings through better resource efficiency and preventing waste, to realise opportunities for growth; and support action by central and local government, businesses and civil society to capitalise on these opportunities. 	No targets or indicators.	Policies should take account of the strategic measures in the Programme.	Include SA objectives which seek to promote waste prevention .
Collation of the Results of the 2009 Aggregate Mineral Survey for England	The report provides comprehensive information for monitoring and facilitating aggregates provision at local, regional and national level. Aggregate Minerals (AM)	No targets or indicators.	Develop appropriate and sustainable policies in the light of the survey results.	Include a sustainability objective that ensures sufficient mineral provision for the

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
and Wales	surveys, based on four-yearly intervals since 1973, provide an in depth and up-to-date understanding of regional and national sales, inter-regional flows, transportation, consumption and permitted reserves of primary aggregates, The Aggregate Minerals 2009 survey report also presents data on the movement and consumption of primary aggregates by sub region. Information is also presented on the quantity of aggregate minerals granted and refused planning permission and, for the first time, planning permission applications withdrawn or awaiting a decision, between 2006 and 2009, by site type and environmental designation.			County.
English Heritage (2008): <i>Minerals Extraction and the Historic Environment</i>	The document sets out English Heritage’s position on mineral extraction and the high-level policies that will form the basis for responses and views put forward by English Heritage on any matter relating to the winning, working and safeguarding of minerals. Although it was produced before the NPPF English Heritage consider the document and a majority of the contents are still relevant. Its principal purpose is to guide the work of English Heritage, but it will also be of interest to the wider historic environment sector, government, local authorities, the minerals industry and other organisations that care for the environment. The document sets out English Heritage’s formal policy on mineral extraction,	No key targets (as yet).	Ensure English Heritage’s formal policy on mineral extraction is taken into account in the development of the MWLP.	Include sustainability objectives that consider the impacts upon the historic environment.

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	including: <ul style="list-style-type: none"> • Sustainability and supply • Safeguarding the industry’s heritage • Impacts and mitigating of current and future extraction • Maintaining historic fabric and local distinctiveness 			
English Heritage (2008): <i>Mineral Extraction and Archaeology: A Practice Guide</i>	The document provides guidance specifically for dealing with archaeological remains as part of mineral development through the planning process. Although it was produced before the NPPF English Heritage consider the document and a majority of the contents are still relevant. The principal purpose of this Practice Guide is to provide clear and practical guidance on the archaeological evaluation of mineral development sites. The guide seeks to ensure that: <ul style="list-style-type: none"> • The best-informed decisions are made regarding the level of archaeological knowledge needed at each stage of the planning process • The use of the full range of up to date and appropriate investigative techniques is considered • There is consistency in planning authority responses, proportionate to the archaeological potential of the site and reasonable in all other respects. 	No key targets (as yet)	Ensure the best practice is taken into account in the development of the MWLP.	Include sustainability objectives that consider the impacts upon archaeology .
HM Government	Plan plots how the UK will meet the 34	The plan includes a 5-point	Plan should include	Objectives should

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
(2009) <i>The UK Low Carbon Transition Plan</i>	percent cut in emissions on 1990 levels by 2020. The Plan shows how reductions in the power sector and heavy industry; transport; homes and communities; workplaces and jobs; and farming, land and waste sectors could enable carbon budgets to 2022 to be met.	Action Plan covering the following areas: <ul style="list-style-type: none"> • Protecting the public from immediate risk; • Preparing for the future; • Limiting the severity of future climate change through a new international climate agreement; • Building a low carbon UK; • Supporting individuals, communities and businesses to play their part. 	policies that contribute towards achieving lower carbon emissions.	reflect the aims set in the UK Low Carbon Transition Plan to reduce carbon emissions .
HM Government (2011): <i>The Carbon Plan: Delivering our low carbon future</i>	The Carbon Plan is a Government wide plan of action on climate change, including domestic and international activity.	The plan includes a range of sectorial plans and targets including low carbon industry.	Plan should include policies that contribute towards achieving lower carbon emissions such as diverting waste from landfill by driving it up the waste hierarchy and using alternate or low emission transport options where viable.	Include a sustainability objective relating to reducing carbon emissions .
DECC (2009) <i>The UK Renewable Energy Strategy</i>	Increase our use of renewable electricity, heat and transport, and help tackle climate change. Build the UK low-carbon economy, promote	15% of energy from renewable sources by 2020. Reducing UK CO2 emissions by	Ensure that site allocations and policies will support renewable energy provision	Include a sustainability objective relating to increasing energy provided from

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	energy security and take action against climate change.	750 million tonnes by 2030.	including electricity, heat and transport.	renewable sources.
HM Government (2017) <i>The Clean Growth Strategy</i>	Under the Climate Change Act, the Government is required to publish a set of policies and proposals that will enable the legally-binding carbon budgets, on track to the 2050 target, to be met. The Clean Growth Strategy sets out a range of policies and proposals, as well as possible long-term pathways for UK emissions in two ways – by decreasing emissions and by increasing economic growth.	The strategy covers the fourth and fifth carbon budgets, spanning 2023-2027 and 2028-2032, by when the UK must cut its greenhouse gas emissions to 57% below 1990 levels.	Plan should support renewable energy provision including electricity, heat and transport.	Include a sustainability objective relating to promoting energy efficiency and the use of appropriate renewable or lower carbon energy sources on site.
DECC (2014) <i>Community Energy Strategy</i>	Sets out plans to promote and facilitate the planning and development of decentralised community energy initiatives in four main types of energy activity: <ul style="list-style-type: none"> • Generating energy (electricity or heat) • Reducing energy use (saving energy through energy efficiency and behaviour change) • Managing energy (balancing supply and demand) • Purchasing energy (collective purchasing or switching to save money on energy) 	No targets or indicators.	Ensure that site allocations and policies will support community low carbon and renewable energy provision including electricity, heat and transport.	Include a sustainability objective relating to increasing energy provided from decentralised low carbon and renewable sources.
DEFRA (2013) <i>The National Adaptation Programme – Making</i>	The report sets out visions for the following sectors: <ul style="list-style-type: none"> • Built Environment – <i>"buildings and places and the people who live and work in</i> 	No targets or indicators.	Policies should take account of the aims of the Programme.	Include SA objectives which seek to promote the implementation

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<p><i>the Country Resilient to a Changing Climate</i></p>	<p><i>them are resilient to a changing climate and extreme weather and organisations in the built environment sector have an increased capacity to address the risks and take the opportunities from climate change”.</i></p> <ul style="list-style-type: none"> • <i>Infrastructure – “an infrastructure network that is resilient to today’s natural hazards and prepared for the future changing climate”.</i> • <i>Healthy and resilient communities – “a health service, a public health and social care system which are resilient and adapted to a changing climate. Communities and individuals, including the most vulnerable, are better prepared to cope with severe weather events and other impacts of climate change. Emergency services and local resilience capability take account of and are resilient to, a changing climate”.</i> • <i>Agriculture and Forestry – “profitable and productive agriculture and forestry sectors that take the opportunities from climate change, are resilient to its threats and contribute to the resilience of the natural environment by helping maintain ecosystem services and protect and enhance biodiversity”.</i> • <i>Natural Environment – “the natural environment, with diverse and healthy ecosystems, is resilient to climate change, able to accommodate change and valued for the adaptation services it provides”.</i> 			<p>of adaptation measures to make the area more resilient to a changing climate.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<ul style="list-style-type: none"> • Business – <i>“UK businesses are resilient to extreme weather and prepared for future risks and opportunities from climate change”.</i> • Local Government – <i>“Local government plays a central in leading and supporting local places to become more resilient to a range of future risk and to be prepared for the opportunities from a changing climate”.</i> 			
<p>HM Government (2018) <i>A Green Future: Our 25 Year Plan to Improve the Environment</i></p>	<p>The 25 Year Environment Plan sets out government action to tackle a wide range of environmental pressures.</p> <p>The 25 Year Environment Plan identifies six areas around which action will be focused. These include:</p> <ul style="list-style-type: none"> • Using and managing land sustainably. • Recovering nature and enhancing the beauty of landscapes. • Connecting people with the environment to improve health and wellbeing. • Increasing resource efficiency, and reducing pollution and waste. • Securing clean, productive and biologically diverse seas and oceans. • Protecting and improving the 	<p>The 25 Year Environment sets out ambitious goals to manage pressures on the environment in the UK, based on England’s 159 National Character Areas and monitoring indicators.</p>	<p>Develop policies that promote conservation and enhancements of the natural environment and ensure that site allocations take account of the goals of the Environment Plan.</p>	<p>Include sustainability objective that relates to the protection of the natural environment.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	global environment.			
DCLG (2014) <i>Planning Practice Guidance – Flood risk and coastal change</i>	<p>The guidance replaces Planning Policy Statement 25 (Development and Flood Risk). It advises how to take account of and address the risks associated with flooding and coastal change in the planning process.</p> <p>The guidance states that waste and mineral planning authorities need to take account of flood risk when allocating land for development. They should prepare their plan policies with regard to any available Strategic Flood Risk Assessments. The location of Mineral Safeguarding Areas and site allocations, in particular in relation to sand and gravel workings which are often located in functional floodplains, need to be identified. It advocates exploring benefits, such as restoring mineral working located in flood risk areas to increase flood water storage, which can also enhance the natural environment.</p>	No targets or indicators.	Ensure that the MWLP has regard to any available SFRA. The sequential approach should be applied to the allocation of sites for waste management and, where possible, mineral extraction and processing.	The SA framework should include objectives to reduce flood risk and support the restoration of mineral sites located in flood risk areas.
DEFRA (GP3): <i>Underground, Under threat – Groundwater Protection: Policy and Practice</i>	To prevent pollution of groundwater.	To meet Water Framework Directive requirements for groundwater quality.	Plan should recognise the importance and vulnerability of groundwater resources and ensure that they are not detrimentally affected by waste development.	Include an objective to protect groundwater quality .
Environment Agency	This Strategy sets out the national framework for managing the risk of flooding	No targets or indicators.	Policies should seek to	The SA framework

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
(2011) <i>The National Flood and Coastal Erosion Risk Management Strategy for England</i>	<p>and coastal erosion. It sets out the roles for risk management authorities and communities to help them understand their responsibilities.</p> <p>The strategic aims and objectives of the Strategy are to:</p> <ul style="list-style-type: none"> • <i>"manage the risk to people and their property;</i> • <i>Facilitate decision-making and action at the appropriate level – individual, community or local authority, river catchment, coastal cell or national;</i> • <i>Achieve environmental, social and economic benefits, consistent with the principles of sustainable development".</i> 		reduce and manage the risk of all types of flooding.	should include objectives which seek to reduce the risk and manage flooding sustainably .
DEFRA (2008) <i>Future Water: The Government's Water Strategy for England</i>	<p>Sets out how the Government want the water sector to look by 2030 and an outline of the steps which need to be taken to get there.</p> <p>The vision for 2030 is one where we, as a country have:</p> <ul style="list-style-type: none"> • <i>"improved the quality of our water environment and the ecology it supports, and continue to maintain high standards of drinking water quality from taps;</i> • <i>Sustainably managed risks from flooding and coastal erosion, with greater understanding and more effective management of surface water;</i> • <i>Ensure a sustainable use of water resources, and implement fair, affordable and cost-reflective water charges;</i> 	No targets or indicators.	Policies should aim to contribute to the vision set out in this Strategy.	Include SA objectives which seek to protect, manage and enhance the water environment .

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<ul style="list-style-type: none"> • <i>Cut greenhouse gas emissions; and</i> • <i>Embed continuous adaptation to climate change and other pressures across the water industry and water users”.</i> 			
<p>Environment Agency (2009) <i>Water for People and the Environment: Water Resources Strategy for England and Wales</i></p>	<p>The Strategy vision for water resource “is for there to be enough water for people and the environment, meeting legitimate needs”.</p> <p>Its aims include:</p> <ul style="list-style-type: none"> • To manage water resource and protect the water environment from climate change. • Restore, protect, improve and value species and habitats that depend on water. • To contribute to sustainable development through good water management. People to understand how water and the water environment contribute to their quality of life. 	<p>No targets or indicators.</p>	<p>Policies should reflect the aims of the strategy where relevant.</p>	<p>Include SA objective which seeks to promote water management and efficiency.</p>
<p>DEFRA (2009) <i>Safeguarding our Soils: A Strategy for England</i></p>	<p>The vision is “<i>by 2030, all England’s soils will be managed sustainability and degradation threats tackled successfully. This will improve the quality of England’s soils and safeguard their ability to provide essential services for future generations</i>”.</p> <p>The Strategy highlights the areas for priority including:</p> <ul style="list-style-type: none"> • Better protection for agricultural soils. • Protecting and enhancing stores of soil carbon. • Building the resilience of soils to a changing climate. 	<p>No targets or indicators.</p>	<p>Ensure that site allocations and policies will help protect and enhance the quality of soils and seek to sustainably manage their quality for future generations.</p>	<p>Include SA objective which seeks to safeguard and enhance the quality of soil.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<ul style="list-style-type: none"> Preventing soil pollution. Effective soil protection during construction and development. Dealing with our legacy of contaminated land. 			
DEFRA (2018) <i>Draft Clean Air Strategy 2018</i>	The draft Clean Air Strategy 2018 sets out actions to improve air quality by reducing pollution from a wide range of sources. The final Clean Air Strategy will inform the detailed National Air Pollution Control Programme, to be published by March 2019.	No targets or indicators of relevance.	Ensure that site allocations and policies will contribute to maintaining and improving air quality.	Include sustainability objectives to protect and improve air quality.
DEFRA and DfT (2017) <i>Improving air quality in the UK: tackling nitrogen dioxide in our towns and cities: Draft UK Air Quality Plan for tackling nitrogen dioxide</i>	The Plan provides an overview of actions that the UK Government plans to take to achieve reduction of harmful air pollution, particularly nitrogen dioxide. Proposes reducing air pollution is via charging Clean Air Zones (CAZs) – areas in which emission standards determine whether a vehicle's owner must pay a charge to enter.	No targets or indicators of relevance.	Ensure that site allocations and policies will contribute to maintaining and improving air quality.	Include sustainability objectives to protect and improve air quality.
DEFRA (2017) <i>UK plan for tackling roadside nitrogen dioxide concentrations</i>	Statutory air quality plan for nitrogen dioxide (NO ₂), setting out how the UK will be reducing roadside nitrogen dioxide concentrations.	No targets or indicators of relevance.	Ensure that site allocations and policies will contribute to maintaining and improving air quality.	Include sustainability objectives to protect and improve air quality.
DEFRA (2007) <i>The Air Quality Strategy for England, Scotland, Wales and Northern Ireland</i>	Make sure that everyone can enjoy a level of ambient air quality in public spaces, which poses no significant risk to health or quality of life. Render polluting emissions harmless.	Sets air quality standards for 13 air pollutants.	Develop policies that aim to meet the standards.	Include sustainability objectives to reduce pollution and protect and improve air quality.
DEFRA (2011) <i>Biodiversity 2020: A</i>	The strategy aims to guide conservation efforts in England up to 2020, and move	The strategy develops ambitious yet achievable goals	Develop policies that promote conservation	Include sustainability objective that relates

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<i>strategy for England's wildlife and ecosystem services</i>	<p>from a net biodiversity loss to gain. The strategy includes 22 priorities which include actions for the following sectors:</p> <ul style="list-style-type: none"> • Agriculture; • Forestry; • Planning and Development; • Water Management; • Marine Management; • Fisheries; • Air Pollution; and • Invasive Non-Native Species. 	for 2020 and 2050, based on Aichi Targets set at the Nagoya UN Biodiversity Summit in October 2010.	and enhancements of biodiversity and ensure that site allocations take account of the aims of the strategy.	to biodiversity.
DEFRA (2011) <i>Securing the Future: Delivering UK Sustainable Development Strategy</i>	<p>Enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life for future generations. There are 4 shared priorities:</p> <ul style="list-style-type: none"> • sustainable consumption and production; • climate change and energy; • natural resource protection and environmental enhancement; and • sustainable communities. 	Sets out indicators to give an overview of sustainable development and priority areas in the UK. They include 20 of the UK Framework indicators and a further 48 indicators related to the priority areas.	Ensure that site allocations and policies meet the aims of the Sustainable Development Strategy.	Include sustainability objectives to cover the Strategy's shared priorities.
DoH (2010) <i>Healthy Lives, Healthy People: our Strategy for public health in England</i>	Protect the population from serious health threats; helping people live longer, healthier and more fulfilling lives; and improving the health of the poorest, fastest. Prioritise public health funding from within the overall NHS budget.	No targets or indicators of relevance.	Ensure that site allocations and policies reflect the objectives of the strategy.	Include a sustainability objective relating to health and well-being.
White and Green Papers				
Natural Environment	<ul style="list-style-type: none"> • Protecting and improving our natural environment; 	No targets or indicators of	Ensure that site	Include a sustainability

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<p>White Paper (DEFRA, 2011)</p> <p><i>The Natural Choice: securing the value of nature</i></p>	<ul style="list-style-type: none"> • Growing a green economy; and • Reconnecting people and nature. 	<p>relevance.</p>	<p>allocations and policies will protect the intrinsic value of nature and recognise the multiple benefits it could have for communities.</p>	<p>objective relating to the enhancement of the natural environment.</p>
<p>Electricity Market Reform White Paper 2011 (DEFRA, 2011)</p> <p><i>Planning our Electric Future: A White Paper for Secure, Affordable and Low-Carbon Electricity</i></p>	<p>This White Paper sets out the Government's commitment to transform the UK's electricity system to ensure that our future electricity supply is secure, low-carbon and affordable.</p>	<p>15 per cent renewable energy target by 2020 and 80 per cent carbon reduction target by 2050.</p>	<p>Ensure that site allocations and policies will support renewable energy generation and encourage greater energy efficiency.</p>	<p>Include sustainability objectives to reduce carbon emissions and increase proportion of energy generated from renewable sources.</p>
<p>Water White Paper (DEFRA 2011)</p> <p><i>Water for Life</i></p>	<p>Objectives of the White Paper are to:</p> <ul style="list-style-type: none"> • Paint a clear vision of the future and create the conditions which enable the water sector and water users to prepare for it; • Deliver benefits across society through an ambitious agenda for improving water quality, working with local communities to make early improvements in the health of our rivers by reducing pollution and tackling unsustainable abstraction; • Keep short and longer term affordability for customers at the centre of decision making in the water sector; • Protect the interests of taxpayers in the 	<p>No targets or indicators of relevance.</p>	<p>Ensure that site allocations and policies will support the efficient use of water, and improvement of water quality.</p>	<p>Include sustainability objectives that relate to water quality and quantity.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>policy decisions that we take;</p> <ul style="list-style-type: none"> • Ensure a stable framework for the water sector which remains attractive to investors; • Stimulate cultural change in the water sector by removing barriers to competition, fostering innovation and efficiency, and encouraging new entrants to the market to help improve the range and quality of services offered to customers and cut business costs; • Work with water companies, regulators and other stakeholders to build understanding of the impact personal choices have on the water environment, water resources and costs; and • Set out roles and responsibilities – including where Government will take a stronger role in strategic direction setting and assessing resilience to future challenges, as well as clear expectations on the regulators. 			
<p><i>The Future of Transport White Paper 2004: A network for 2030</i> (DfT, 2004)</p>	<p>Ensure we can benefit from mobility and access while minimising the impact on other people and the environment, now and in the future.</p> <p>Get the best out of our transport system without damaging our overall quality of life.</p> <p>Develop strategies that recognise that</p>	<p>20% reduction in carbon dioxide emissions by 2010 and 60% reduction by 2050. Transport is currently responsible for about a quarter of total emissions.</p>	<p>Develop policies and allocate sites that promote/enable the use of sustainable modes of transport.</p>	<p>Include sustainability objectives to reduce the vehicle kilometres travelled for the transportation of minerals and waste and promote the use</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>demand for travel will increase in the future.</p> <p>Work towards a transport network that can meet the challenges of a growing economy and the increasing demand for travel but can also achieve the government’s environmental objectives.</p>			of sustainable modes of transport.
National Legislation				
Localism Act 2011	<p>The Localism Act introduced a number of measures to provide greater decision making powers at the local level, creating space for Local Authorities to lead and innovate, and giving people the opportunity to take control of decisions that matter to them. The proposals set out in the Localism Act include:</p> <ul style="list-style-type: none"> • New freedoms and flexibility for local government; • New rights and powers for communities and individuals; • Reforms to make the planning system more democratic and more effective; • Reforms to ensure decisions about housing are taken locally 	No targets or indicators of relevance.	The HMWLP should be prepared in accordance with the requirements of the Act. In preparing the Plan, the Local Authority will be required to engage constructively, actively and on an ongoing basis with other local authorities to meet the Duty to Co-operate.	The SA should be consulted upon at key stages during its preparation.
<i>Flood and Water Management Act 2010</i>	<p>To improve the management of flood risk for people, homes and businesses.</p> <p>To protect water supplies.</p>	<p>Local Authorities to prepare flood risk assessments, flood maps and plans.</p> <p>Lead Local Flood Authorities to prepare Local flood risk management strategies.</p>	Plan should take account of flooding and water management issues and strategies.	Consider inclusion of an objective to reduce flood risk and other impacts on the water environment.
<i>Climate Change Act</i>	The Climate Change Act 2008 introduced a	Target of reducing carbon	Planning makes a	Objectives should

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
2008	statutory target of reducing carbon emissions.	emissions by 80 per cent below 1990 levels by 2050, with an interim target of 34% by 2020.	significant contribution to both mitigating and adapting to climate change through its ability to influence the location, scale, mix and character of development. The plan should include policies that contribute towards achieving lower carbon emissions and greater resilience to the impacts of climate change.	reflect the aims set in the Climate Change Act to reduce carbon emissions .
<i>The Countryside and Rights of Way Act 2000</i>	Emphasises the public's right of access to open country and common land, and gives additional protection to Sites of Special Scientific Interest (SSSI).	No targets or indicators of relevance.	Plan should seek to conserve and enhance PROWs and SSSIs.	The SA Framework should include objectives relating to the protection of SSSIs and PROWs .
<i>The Natural Environment and Rural Communities Act 2006 – Section 41: list of habitats and species of principal importance in England 2008</i>	The lists have been prepared by the Secretary of State for Environment, Food and Rural Affairs as required under section 41(1) of the Natural Environment and Rural Communities (NERC) Act 2006. They identify the living organisms (species) and types of habitat which the Secretary of State considers are of principal importance for the purpose of conserving biodiversity in England.	The extensive lists of habitats and species are available on the JNCC website at: [UK BAP Priority Habitats] http://jncc.defra.gov.uk/page-5718 [UK BAP Priority Species] http://jncc.defra.gov.uk/page-5717	Plan should further the conservation of the habitats and species on the list.	Include sustainability objectives relating to the protection of biodiversity .
Regulations				
<i>The Conservation of Habitats and Species</i>	The Regulations provide for the designation and protection of 'European sites', the	No targets or indicators specifically, or directly relevant	Consider how the plan can contribute to	Include sustainability objectives relating to

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<i>Regulations (2010) (as amended)</i>	protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.	to minerals plans.	meeting the regulations.	protection of European sites.

Table 3 Key local plans, programmes and environmental protection objectives

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
LOCAL				
Herefordshire Council (2015) <i>Herefordshire Core Strategy 2011 – 2031</i>	The Core Strategy provides the strategic planning framework for the county's future development needs. It sets out a range of policies to identify what those needs are and how they can be met.	Preparation of Annual Monitoring Report.	Ensure that site allocations and policies will be in conformity with the Core Strategy, consider its objectives and add more detailed policies to guide development in certain areas.	The SA framework will include objectives to ensure a balanced approach taken to new development to ensure sustainability principles are met.
Herefordshire Council (2011, 2016) <i>Waste Strategy for Herefordshire and Worcestershire 2004-2034</i>	Aims to reduce waste and restrict growth by: <ul style="list-style-type: none"> • Reducing packaging and facilitating more sustainable consumer behaviour • Re-use waste – through re-use schemes. • Retain waste –within the household 	<ul style="list-style-type: none"> • Achieve the national reductions in household residual waste of 35% by 2015 and 45% by 2020. • Work towards achieving national recycling/composting levels 	Plan should support the waste hierarchy – reduce, reuse, recycle, other recovery and disposal.	The SA framework will include objectives which support the waste hierarchy.

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>through home composting and the use of home waste disposal units for kitchen waste where composting is unsuitable</p> <ul style="list-style-type: none"> • Recycle waste – Through the provision of a single container to each household that will contain all dry recyclable material, to be collected fortnightly and automatically separated • Recovery of value from residual • Final disposal – into suitable landfill sites, which recover gas to generate energy as far as practicable. 	<p>of household waste of 45% by March 2015 and 50% by March 2020.</p> <ul style="list-style-type: none"> • Continue to meet the requirements of the Household Waste Recycling Act 2003. • By 2015, or earlier if practicable, recover value from a minimum of 78% of municipal waste. • Reduce the amount of biodegradable municipal waste landfilled in order to meet the yearly allowances set by Government under the Landfill Allowance Trading Scheme. 		
<p>Herefordshire Council (2016) <i>Herefordshire Local Transport Plan 4 2016-2031</i></p>	<p>The LTP4 objectives are:</p> <ul style="list-style-type: none"> • Enable economic growth – by building new roads linking new development to the transport network and by reducing short distance car journeys. • Provide a good quality transport network for all users – by being proactive in our asset management and by working closely with the public, Highways England and rail and bus companies. 	<p>The Transport Plan 2016-2031 contains a range of monitoring indicators. Issues covered include the following: Congestion, accessibility, road traffic accidents, road and footway maintenance, conditions of highway structures, road flooding.</p>	<p>Plan should include policies which aim to reduce traffic growth, pollution and congestion.</p>	<p>The SA framework should include objectives that seek to minimise use of rural roads and maximise use of the strategic road network and lorry route networks. Consider</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<ul style="list-style-type: none"> Promote healthy lifestyles – by making sure new developments maximise healthier and less polluting forms of transport by delivering and promoting active travel schemes and by reducing short distance single occupant car journeys on our roads. Make journeys easier and safer – by making bus and rail tickets compatible and easier to buy and use, by providing ‘real time’ information at well-equipped transport hubs, by improving signage to walking and cycling routes and by helping people feel safe during their journeys. Ensure access to services for those living in rural areas – by improving the resilience of our road network and by working closely with all transport operators to deliver a range of transport options particularly for those without a car. 			objectives to reduce the emissions of greenhouse gases .
<p>Herefordshire Council (2005) <i>Biodiversity Action Plan</i></p> <p><i>This document is currently being reviewed and updated</i></p>	<p>Protect and enhance the county’s biodiversity assets:</p> <ul style="list-style-type: none"> Improve the condition of Council owned Sites of Special Scientific Interest (SSSI) Prepare and implement a Biodiversity Action Plan complete with an effective 	<p>Indicators and targets are included for each objective.</p>	<p>Plan should include policies to preserve and enhance, where possible, the wildlife and habitats of Herefordshire.</p>	<p>The SA framework will include objectives that seek to protect and enhance the county’s biodiversity</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	monitoring, reporting and review system <ul style="list-style-type: none"> • Protect and enhance the biodiversity on Council owned land 			assets.
Herefordshire Council (2017) <i>Invest Herefordshire – Herefordshire’s Economic Vision</i>	The economic vision has four key roles: <ul style="list-style-type: none"> • to support the growth of the Herefordshire economy by identifying priority projects; • to attract investment to Herefordshire and guide it within the County; • to raise the profile of Herefordshire and the investment opportunities; and, • to provide Herefordshire with clear priorities for negotiations. 	<ul style="list-style-type: none"> • Increase GVA per head by 10% in real terms from £19,500 to £21,500 by 2031. • Directly assist in the creation of 1,000 new businesses by 2031. • Create 10,000 new jobs by 2031. • Provide 1,500 HE student places in county by 2025. • Increase the total visitor spend by 7.5% by 2021. • Increase the total number of annual visits by 10% to over 5.5 million visitors. • A 30% reduction in Herford through traffic average journey times by 2031. • 100% increase in the number of people cycling regularly by 2021 and a 200% increase by 2031. 	Plan should take account of the fact that minerals and waste developments need to make a contribution to a sustainable economy in Herefordshire.	The SA framework will include objectives to help to meet economic vision of the County.
Malvern Hills AONB Partnership (2014)	Aims of the management plan include: <ul style="list-style-type: none"> • To conserve and enhance the 	No specific targets or indicators.	The Minerals and Waste Local Plan	The SA framework

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<p><i>Malvern Hills AONB Management Plan 2014-2019</i></p>	<p>features which contribute to the distinctive landscapes of the area.</p> <ul style="list-style-type: none"> • To preserve, promote and wisely use the geodiversity of the AONB. • To value, conserve, restore and wisely use nature • To conserve and enhance the historic environment of the AONB, including the significance of its heritage assets, their setting and the historic character of the landscape. 		<p>should be consistent with supporting the objectives in the Management Plan to conserve and enhance the Malvern Hills AONB.</p>	<p>should include objectives to enhance and protect natural environmental assets including AONB's.</p>
<p>Wye Valley AONB Partnership (2015) <i>Wye Valley AONB Management Plan, 2015-2020</i></p>	<p>Aims of the management plan include:</p> <ul style="list-style-type: none"> • Conserve and, where necessary, enhance the natural beauty of the landscape in the Wye Valley AONB, with its natural and cultural features and processes and the Special Qualities and features of the Landscape Management Zones. • Conserve, and where appropriate enhance, the biodiversity of the AONB • Conserve and enhance sites that are important for the scientific and general understanding, appreciation and enjoyment of the geodiversity heritage of the AONB. • Conserve and sympathetically manage the historic environment and cultural heritage of the AONB and promote engagement with and 	<p>No specific targets or indicators.</p>	<p>The Minerals and Waste Local Plan should be consistent with supporting the objectives in the Management Plan to conserve and enhance the Wye Valley AONB.</p>	<p>The SA framework should include objectives to enhance and protect natural environmental assets including AONB's.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>understanding of it.</p> <ul style="list-style-type: none"> • Ensure that all development with and impacting on the AONB is compatible with the aims of AONB designation. • Ensure all minerals development within the AONB is compatible with the aims of AONB designation • Ensure the most sustainable, effective and efficient use and supply of services and energy within and impacting on the AONB, compatible with the aims of AONB designation • Ensure transport in the AONB is sustainable and integrated and compatible with the purposes of AONB designation. 			
<p>A Management Plan for the Brecon Beacons National Park 2015-2020</p>	<p>Contains a plan for managing the use and development of the National Park under six themes:</p> <ul style="list-style-type: none"> - Theme 1: Managing Park Landscapes to Maximise Conservation and Public Benefits. - Theme 2: Conserving and Enhancing Biodiversity. - Theme 3: Provide Opportunities for Outdoor Access and Recreation. - Theme 4: Raising Awareness and Understanding of the Park. - Theme 5: Building and Maintaining 	<p>No targets or indicators of relevance.</p>	<p>Plan should be consistent with supporting the objectives in the Management Plan to conserve and enhance the Brecon Beacons National Park.</p>	<p>The SA Framework should include objectives to enhance and protect natural environmental assets including landscape and biodiversity, as well as objectives to protect and</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>Sustainable Communities, Towns and Villages.</p> <p>- Theme 6: Sustainable Economic Development.</p> <p>Each theme contains a number of aims, objectives and actions.</p>			enhance open space.
<p>Environment Agency & Natural England (2014) <i>River Wye SAC Nutrient Management Plan (NMP)</i></p>	<p>The aims of the NMP are:</p> <ul style="list-style-type: none"> Sections of the River Wye SAC where the phosphate levels currently exceed the favourable condition target (River Lugg) will be subject to measures to reduce phosphate levels to those which are defined as favourable for the site. The design and timing of these measures should ensure that, taking these measures into account, new development within existing water discharge permits can occur without any significant adverse effect on the integrity of these sections of the River Wye SAC and without compromising the achievement of the reductions in phosphate levels required as soon as possible and at the latest by 2027; Sections currently meeting the favourable condition phosphate target will be subject to measures to ensure that future inputs of phosphate will not at any time lead to any adverse effect on the integrity of the River Wye SAC as a consequence of currently available capacity at the permitted discharges 	<p>Phosphate levels in the River Wye (annual averages) to be as follows:</p> <ul style="list-style-type: none"> River Wye from English/Welsh boundary to the River Lugg confluence - 0.03mg/l soluble reactive phosphorus (SRP) (I.e. the standard to achieve in the River Wye immediately upstream of the confluence with the River Lugg is 0.03mg/l SRP) River Wye from the Lugg confluence downstream – 0.05mg/l SRP (I.e. the standard to achieve in the River Wye downstream of the confluence with the River Lugg is 0.05mg/l SRP) River Lugg (from Leominster to Wye confluence) – 0.05mg/l SRP (I.e. the standard to achieve in the River Lugg immediately upstream of the confluence with the River Wye is 0.05mg/l SRP.) <p>A target of 0.03mg/l SRP has also been set for the River Lugg upstream of Leominster, which is designated as a SSSI, although it is not part of the SAC.</p>	<p>The Minerals and Waste Local Plan should be consistent with supporting the objectives in the Plan.</p>	<p>The SA framework will include an objective relating to water quality and to the conservation of sites of international importance to nature conservation.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>being utilised by new development; and</p> <p>The plan will attempt to identify further actions which will facilitate further development within the catchment that is in line with the policies within the emerging core strategy and other strategic planning documents within the catchments of the River Wye SAC.</p> <p>The objectives of the NMP include:</p> <ul style="list-style-type: none"> • Source apportionment within the River Wye and River Lugg catchments to understand current phosphate contributions from the point and diffuse sectors, focusing on significant water company and point source discharges and on diffuse inputs from the agricultural sector; • Assessment of the additional phosphate loads from these sectors as a result of the planned growth within Herefordshire; and • Identification of the scale of potential phosphate reduction measures that could be required to aim to achieve compliance with the River Wye SAC targets for phosphates. 			
<p>Environment Agency (2015) Water for life and livelihoods: <i>The Severn River Basin</i></p>	<p>Improved water quality within the Severn River Basin which includes the River Wye catchment.</p>	<p>To meet the requirements of the Water Framework Directive:</p> <ul style="list-style-type: none"> • Prevent deterioration in the status of aquatic ecosystems, 	<p>Increasing percentage of river length achieving good environment status</p>	<p>Consider inclusion of objective to protect and</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<i>District Management Plan</i>		<p>protect them and improve the ecological condition of waters;</p> <ul style="list-style-type: none"> • Aim to achieve good status for all waterbodies by 2021 or 2027; • Meet the requirements of Water Framework Directive protected areas; • Promote sustainable use of water as a natural resource; • Conserve habitats and species that depend directly on water; • Progressively reduce or phase out the release of individual pollutants or groups of pollutants that present a significant threat to the aquatic environment; • Progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants; • Contribute to mitigating the effects of floods and droughts. 	by target dates of 2021, 2027 and beyond 2027.	enhance water quality.
Herefordshire Council (2017) <i>Local Flood Risk Management Strategy</i>	<p>The strategy objectives for managing local flood risk are:</p> <ul style="list-style-type: none"> • Understand flood risks throughout Herefordshire. • Manage the likelihood and impacts of flooding. • Help the community help 	The Local Flood Risk Management Strategy sets out a work programme to be undertaken, subject to funding coming forward.	The Plan should include policies consistent with sustainable flood risk management.	Consider inclusion of objectives to reduce the risk of flooding and the impact on society, the economy and

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>themselves.</p> <ul style="list-style-type: none"> • Manage flood warning, response and recovery. • Promote sustainable and appropriate development. 			the environment.
<p>Herefordshire Council (2009) <i>Strategic Flood Risk Assessment for Herefordshire</i></p> <p>Herefordshire Council (2015) <i>Strategic Flood Risk Assessment - Update</i></p>	<p>The primary aim of the SFRAs is to determine whether planning policies or development land allocations will increase the risk of flooding, both within the development and the surrounding area, and to identify and promote measures that will minimise flood risk and/or enhance flood resilience at all levels.</p>	<p>No key targets or indicators.</p>	<p>The Plan must take into account the SFRA's sequential testing and guidance for selecting suitable sites for minerals and waste development.</p>	<p>The SA framework should include objectives to ensure minerals and waste developments are not at risk of flooding both presently and taking into account climate change and do not increase the risk of flooding elsewhere.</p>
<p>Environment Agency Wales (2010) <i>The Wye and Usk Catchment Flood Management Plan and The Severn Catchment Flood Management Plan</i></p>	<p>CFMP aims to promote more sustainable approaches to managing flood risk.</p>	<p>Indicators include: Coastal and fluvial flood frequency; Environment Agency annual indicative flood zone updates; Environment Agency quarterly indicative flood plain mapping</p>	<p>Plan should include policies consistent with sustainable flood risk management.</p>	<p>Consider inclusion of objectives to reduce the risk of flooding and the impact on society, the economy and the environment.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
<p>Environment Agency Wales (2016) <i>Wye Abstraction Licencing Strategy</i></p>	<p>The Water Framework Directive’s (WFD) main objectives are to protect and enhance the water environment and ensure the sustainable use of water resources for economic and social development. CAMS contribute to achieving environmental objectives under the WFD by providing a water resource assessment of rivers, lakes, reservoirs, estuaries and groundwater (referred to as water bodies) and:</p> <ul style="list-style-type: none"> identifying water bodies that fail flow conditions expected to support good ecological status; preventing deterioration of water body status due to new abstractions; providing results which inform River Basin Management Plans (RBMPs). 	<p>The main components of this assessment that help us to understand the availability of water resources are:</p> <ul style="list-style-type: none"> a resource allocation for the environment defined as a proportion of natural flow, known as the Environmental Flow Indicator (EFI); the Fully Licensed (FL) scenario - the situation if all abstraction licences were being used to full capacity; the Recent Actual (RA) scenario – the amount of water which has actually been abstracted on average over the previous six years. 	<p>Plan should be consistent with the vision to ensure sustainable management of water resources.</p>	<p>Consider inclusion of objectives to ensure sustainable management of water resources.</p>
<p>Herefordshire Council (2010) <i>Green Infrastructure Strategy Herefordshire</i></p>	<p>The objectives of the plan are to:</p> <ul style="list-style-type: none"> To provide an evidence base of green infrastructure assets based on a comprehensive analysis and understanding of: all natural resources and systems; all related land uses and human systems and activities, both past and current To establish a vision for a sustainable future for Herefordshire’s environment and green infrastructure assets. To identify and promote the economic, social and health benefits 	<p>Prepare Design Guidance for developers.</p>	<p>Plan should protect existing green infrastructure and support the restoration of sites to greenfield land.</p>	<p>The SA Framework should consider inclusion of objectives to support the protection of existing green infrastructure and the restoration of sites to greenfield land.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>of a multifunctional environment, centred on a dynamic green infrastructure network.</p> <ul style="list-style-type: none"> • To ensure comprehensive recognition of green infrastructure assets, deficiencies and opportunities within the local planning framework. • To establish principles and policies that secure protection and promote the enhancement of existing green infrastructure, and identify opportunities and means of creating new, high quality green infrastructure. • To produce guidelines for developers, planners and land managers that will ensure the successful integration, implementation and ongoing management of green infrastructure. • To maximise the contribution green infrastructure provision can make towards mitigating the effects of and adapting to the implications of climate change, including flood risk management. • To identify specific projects and opportunities, including opportunities for funding, that best deliver green infrastructure and act as examples to others. • To realise the contribution green infrastructure can make to the reversal of habitat fragmentation and decline in biodiversity through 			

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>investment in the restoration, creation and protection of priority habitats.</p> <ul style="list-style-type: none"> To realise the contribution green infrastructure can make to the protection and restoration of landscape character and cultural heritage, particularly the reversal in decline in condition of landscapes. 			
<p>Worcestershire County Council (2016) <i>Emerging Minerals Local Plan</i></p>	<p>The objectives of the plan are to:</p> <ul style="list-style-type: none"> Deliver development in accordance with the priorities of the spatial strategy Maximise the contribution of substitute, secondary and recycled materials and minerals waste to overall mineral supply. Maintain the steady and adequate supply of sand and gravel and address shortfalls in the landbank of permitted reserves. Maintain the county's role in the steady and adequate supply of brick clay, bricks and brick products. Foster an adequate and diverse supply of building stone. Enable the sustainable supply of other locally and nationally important mineral resources found in the county, including crushed rock and silica sand. Safeguard locally and nationally important minerals and supporting 	<p>The Emerging Minerals Local Plan outlines targets and indicators for each objective such as the location of new mineral developments, landbank of permitted reserves and productive capacity for each mineral type, applications in mineral resources consultation areas, etc.</p>	<p>Any cross-boundary issues will need to be addressed during the preparation of the Minerals and Waste Local Plan.</p>	<p>Consider inclusion of objectives to encourage sustainable transport of minerals and reducing cumulative impacts of mineral development.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>infrastructure from being needlessly sterilised.</p> <ul style="list-style-type: none"> • Promote community inclusion in mineral development from inception to after-use so that local issues are understood and addressed. • Ensure that mineral development contributes to the mitigation of and adaptation to climate change and makes prudent use of natural resources. • Ensure that mineral development protects and enhances the health, well-being, safety and amenity of people and communities in and around Worcestershire. • Ensure that mineral development protects and enhances the natural and historic environment and distinctive local character. • Ensure that mineral development protects and enhances the vitality of the local economy. • Optimise opportunities to integrate economic, social and environmental benefits through the delivery of high quality multifunctional green infrastructure throughout the life of the mineral development. 			
<p>Powys County Council (2011) <i>Powys Local Development Plan 2011 - 2026</i></p>	<p><i>NB The Powys Local Development Plan 2011 – 2026 contains waste and minerals policies.</i></p> <p>Relevant policies:</p>	<p>Key targets for waste:</p> <p>By 2019/2020:</p> <ul style="list-style-type: none"> • 64% of all waste produced in 	<p>Any cross-boundary issues will need to be addressed during the preparation of the</p>	<p>Consider inclusion of objectives to encourage</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<ul style="list-style-type: none"> • Policy W1 – Waste • Policy M1 – Existing Sites • Policy M2 – New Minerals Sites • Policy M3 – Temporary Minerals Workings 	<p>the County to be recycled or composted;</p> <ul style="list-style-type: none"> • Maximum 10% of all waste produced in the County to be sent to landfill; • Maximum of 36% all waste produced in the County to be diverted to energy from waste facilities. <p>By 2024/25:</p> <ul style="list-style-type: none"> • 70% of all waste produced in the County to be recycled or composted; • Maximum 5% of all waste produced in the County to be sent to landfill; • Maximum of 30% all waste produced in the County to be diverted to energy from waste facilities. <p>Key targets for minerals:</p> <ul style="list-style-type: none"> • To maintain at least a 25 year landbank of crushed rock aggregates. • To protect non sterilised mineral resources of commercial interest from sterilisation by other development. • To review the likelihood of future extraction from long time inactive reserves identified annually. 	<p>Minerals and Waste Local Plan.</p>	<p>sustainable transport of minerals and waste and reducing cumulative impacts of mineral and waste developments.</p>

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
		<ul style="list-style-type: none"> To comply with the Aggregates Regional Technical Statement (MTAN). 		
<p>Shropshire Council (2011) <i>Local Development Framework 2006-2026 Adopted Core Strategy 2006-2026</i></p>	<p>Relevant policies:</p> <ul style="list-style-type: none"> Policy CS 19 Waste Management Infrastructure Policy CS20 Strategic Planning for Minerals 	<p>Monitoring indicators relevant to MWLP:</p> <ul style="list-style-type: none"> Capacity of new waste management facilities by type Municipal waste management performance. Production of primary, land-won aggregates. Landbank for sand and gravel resources. Landbank for crushed rock resources. 		
<p>Monmouthshire County Council (2014) <i>Adopted Local Development Plan 2011 - 2021</i></p>	<p>Relevant policies:</p> <ul style="list-style-type: none"> Policy S14 – Waste Policy S15 - Minerals Policy SAW1 – Identified Potential Waste Management Sites Policy W1 – Waste Reduction Policy W2 – Waste Recovery Facilities: Households Policy W3 – Waste Management Facilities Policy W3 – Rural Composting Policy W5 – Waste Disposal by Landfill or Landraising Policy W6 – Waste Deposition on Agricultural Land for Agricultural Improvement Purposes Policy M1 – Local Building and 	<p>Monitoring indicators relevant to MWLP:</p> <ul style="list-style-type: none"> Amount of waste management capacity permitted expressed as a percentage of the total capacity required as identified in the Regional Waste Plan. Extent of primary land-won aggregates resources as a percentage of total capacity identified in the Regional Technical Statement Number of permitted permanent non-mineral developments on safeguarded sites 		

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>Walling Stone</p> <ul style="list-style-type: none"> • Policy M2 – Minerals Safeguarding Areas • Policy M3 – Mineral Site Buffer Zones 			
<p>Worcester City Council Malvern Hills District Council and Wychavon District Council (2016) <i>South Worcestershire Development Plan</i></p>	<p>Relevant policies:</p> <ul style="list-style-type: none"> • SWDP32 Minerals • SWDP 33 Waste 	<p>No key targets or indicators.</p>		
<p>Gloucestershire County Council (2012) <i>Gloucestershire Waste Core Strategy</i></p>	<p>Objectives of the adopted Gloucestershire Waste Core Strategy:</p> <ul style="list-style-type: none"> • To raise awareness of waste issues amongst Gloucestershire residents and businesses in order to generate collective responsibility for waste, ensure it is seen as a potential resource and to reduce the amount of waste produced, with zero-growth achieved across all waste streams by 2020. • To make the best use of Gloucestershire’s waste by ensuring that residents and businesses re-use as much of their waste as possible and that if waste cannot be re-used, it can easily be recycled or composted to achieve the following: <ul style="list-style-type: none"> - At least 60% household waste recycled/composted by 2020 with an aspiration for 70% by 2030. - Diversion of an additional 91,000 	<ul style="list-style-type: none"> • At least 60% household waste recycled/composted by 2020 with an aspiration for 70% by 2030 • Diversion of an additional 91,000 – 111,000 tonnes/year of C&I waste from landfill through recycling/composting facilities • Diversion of an additional 85,000 tonnes/year of C&D waste from licensed landfill through inert recycling and recovery • Provision for between 108,000 – 145,000 tonnes/year residual waste recovery capacity for municipal waste by 2027. • Recovery facilities with the capacity to divert between 43,000 – 73,000 tonnes/year of C&I waste from landfill by 2020. 		

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<ul style="list-style-type: none"> - 111,000 tonnes/year of C&I waste from landfill through recycling/composting facilities. - Diversion of an additional 85,000 tonnes/year of C&D waste from licensed landfill through inert recycling and recovery. • To recover the maximum amount of value including energy from any waste that cannot be re-used, recycled or composted through the provision of the following: <ul style="list-style-type: none"> - Provision for between 108,000 – 145,000 tonnes/year residual waste recovery capacity for municipal waste by 2027. - Recovery facilities with the capacity to divert between 43,000 – 73,000 tonnes/year of C&I waste from landfill by 2020. • To recognise the continuing role of landfill for the disposal of certain residual and hazardous wastes whilst reducing our reliance on landfill as the primary method of waste management in Gloucestershire. • To ensure the environmental and social impacts of waste management particularly climate change and risks to human health are minimised by: <ul style="list-style-type: none"> ○ managing waste close to where it arises, ○ promoting the use of 			

Plan, Programme or Environmental Protection Objective	Key objectives relevant to the Minerals and Waste Local Plan	Key targets and indicators relevant to the Minerals and Waste Local Plan	Implications for the Minerals and Waste Local Plan	Implications for SA
	<p>sustainable transport,</p> <ul style="list-style-type: none"> o avoiding current and potential flood risk areas, o safeguarding existing and proposed waste sites, o promoting high quality sustainable design, o protecting national and local areas of landscape and nature conservation importance, and o prioritising the co-location of similar or related facilities on existing waste sites or previously developed sites in preference to greenfield locations where appropriate and where the cumulative impact is not unacceptable to the host location. 			

Appendix 2

Maps

Figure 1 Location

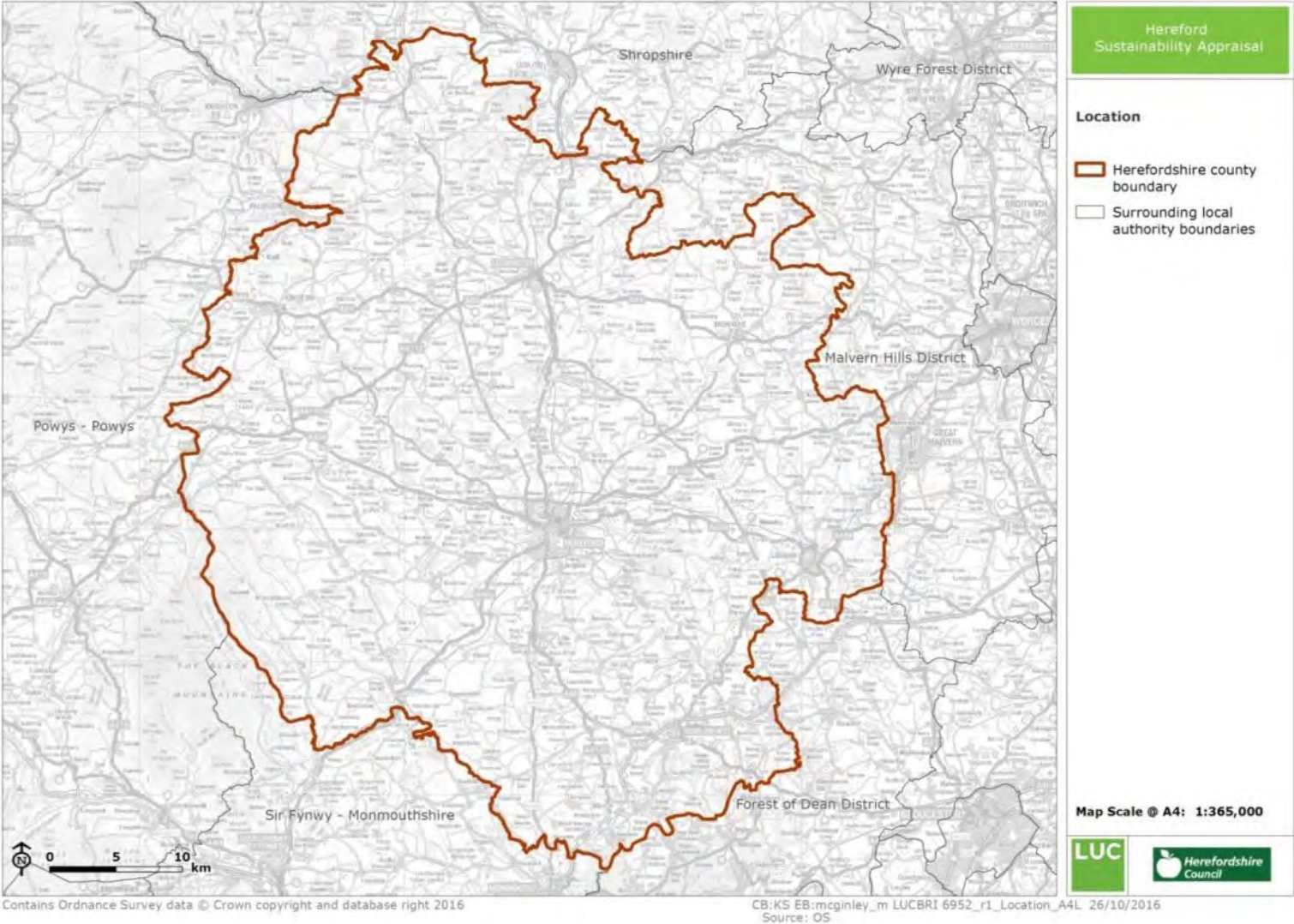
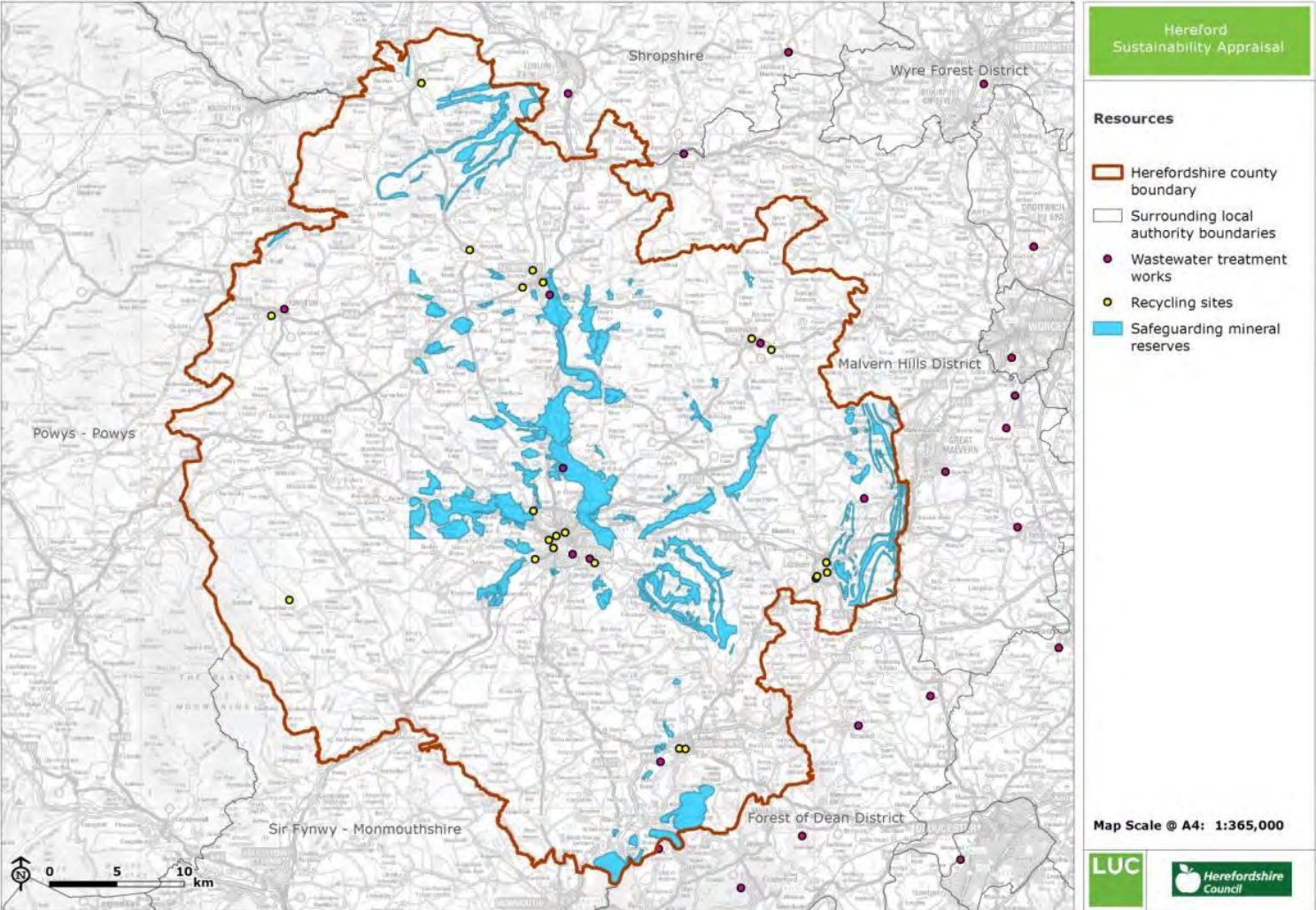


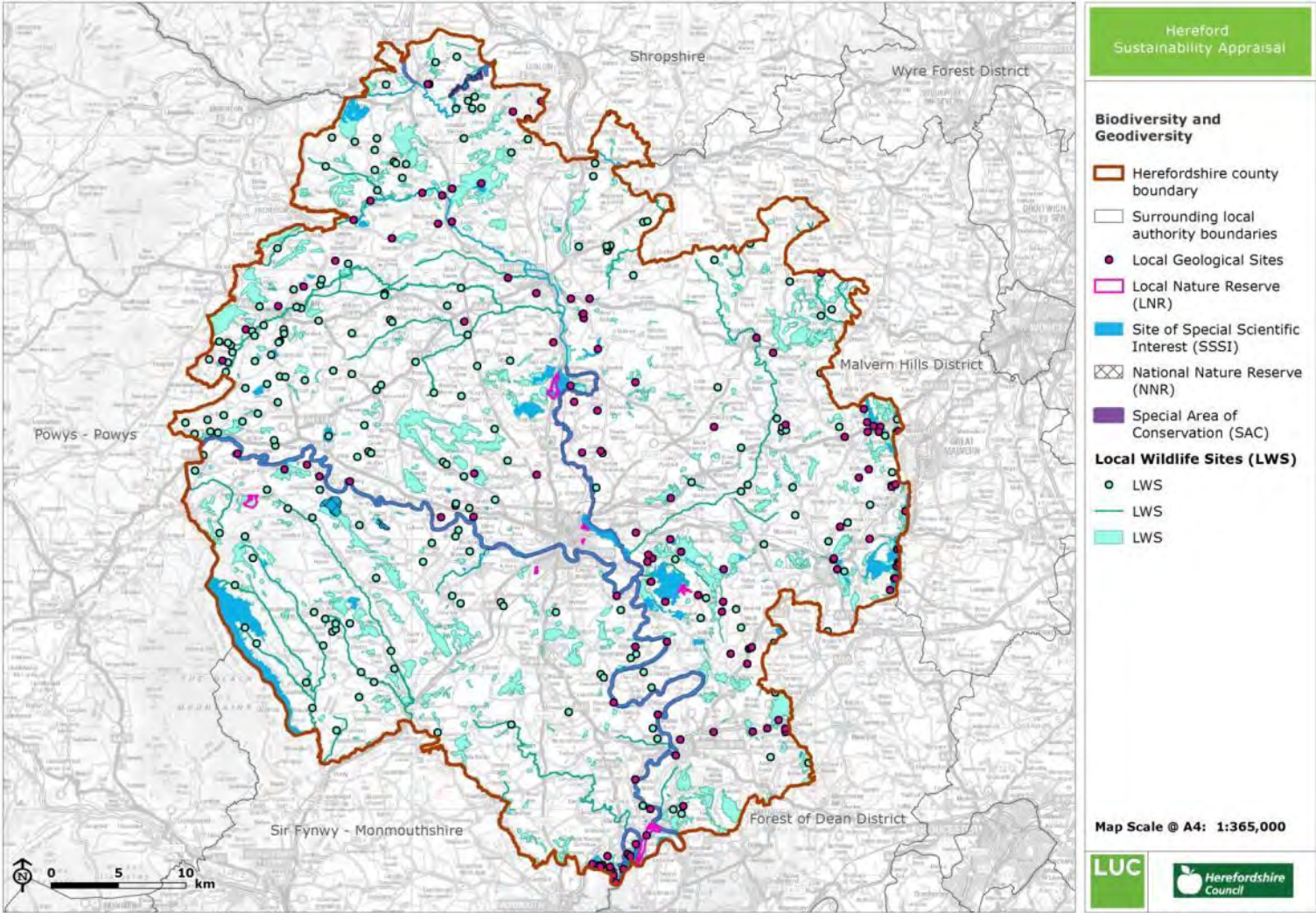
Figure 2 Resources



© Natural England copyright 2016. Contains Ordnance Survey data © Crown copyright and database right 2016

CB:KS EB:mcginley_m LUCBRI 6952_r1_Resources_A4L 31/10/2016
Source: OS, HC

Figure 3 Biodiversity and Geodiversity



© Natural England copyright 2016. Contains Ordnance Survey data © Crown copyright and database right 2016

CB:KS EB:Stenson_k LUCBRI 6952_r1_Biodiversity_Geodiversity_A4L 10/31/2016
Source: HC, OS, NE, JNCC

Figure 4 Air Quality

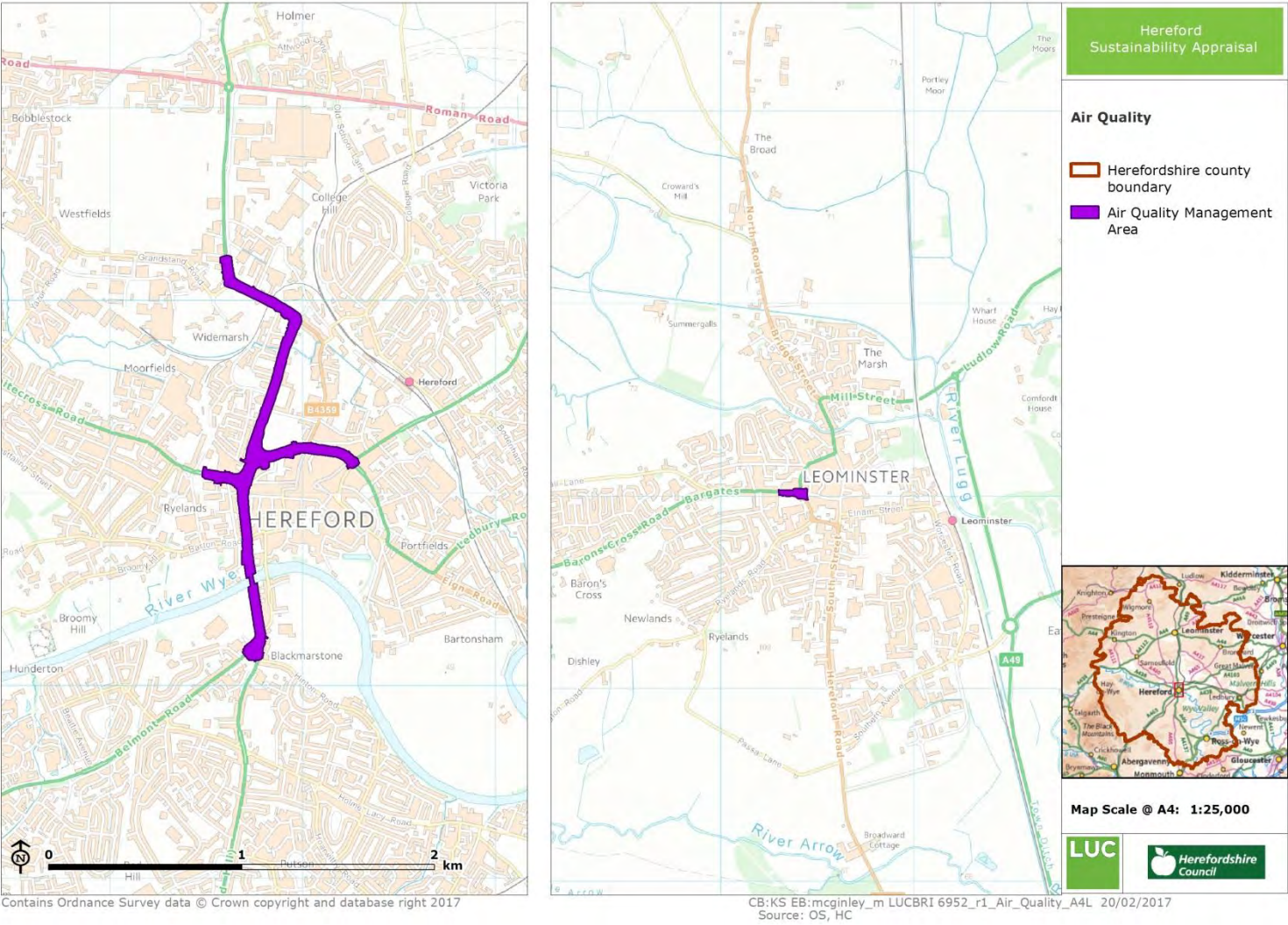


Figure 5 Hydrology

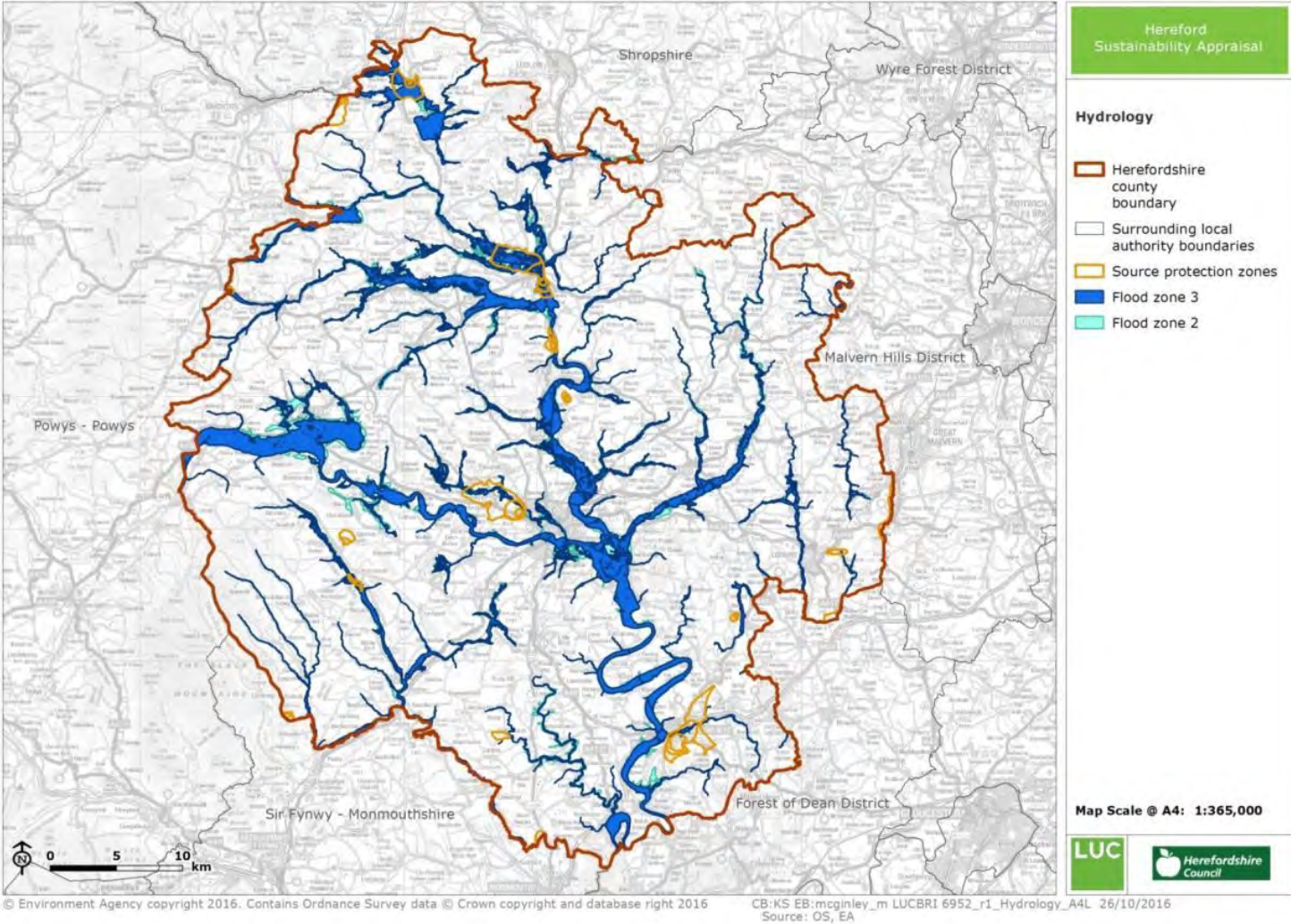
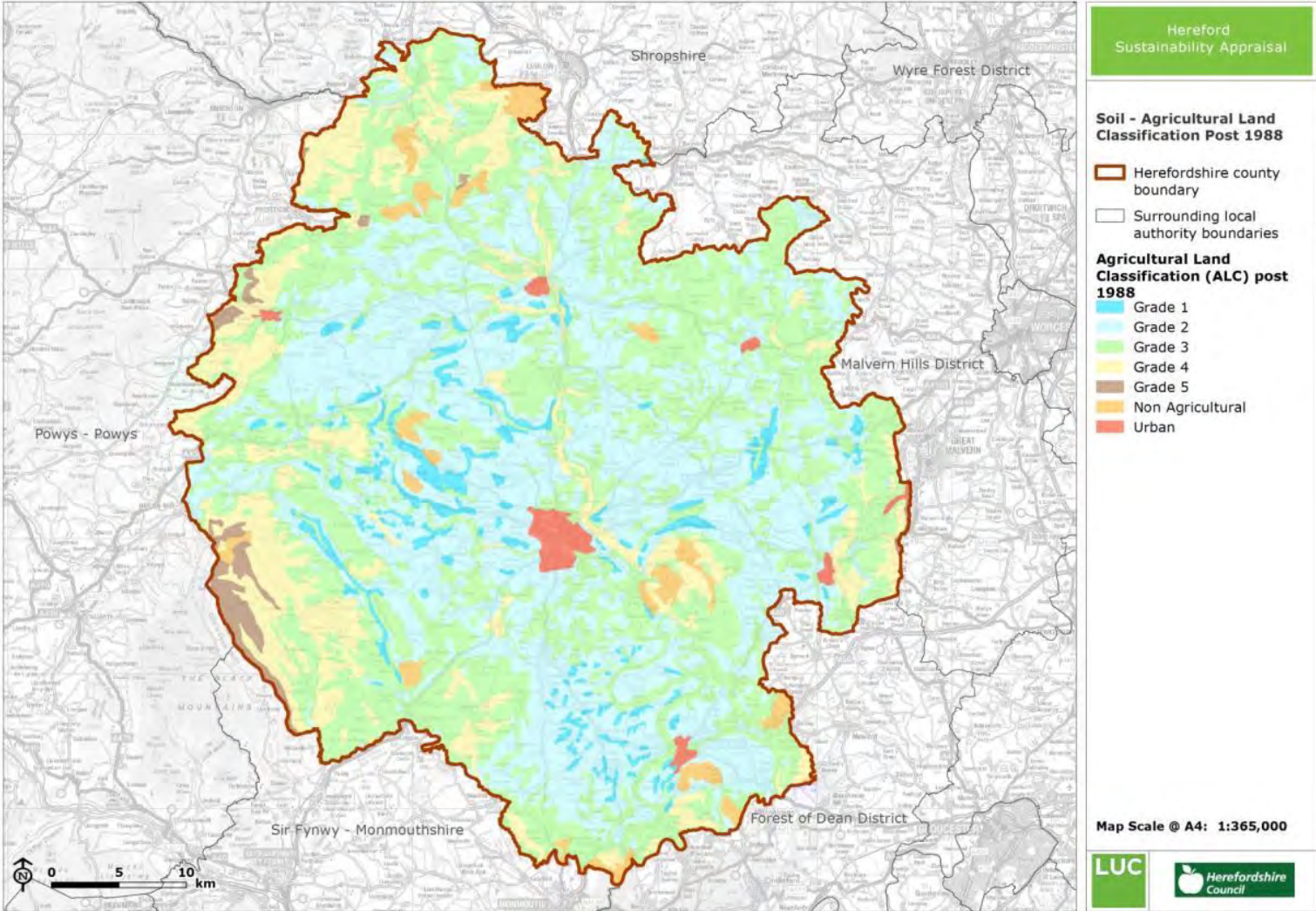


Figure 6 Soil - Agricultural Land Classification Post 1988



© Natural England copyright 2016. Contains Ordnance Survey data © Crown copyright and database right 2016

CB:KS EB:Stenson_k LUCBRI 6952_r1_ALC_Post1988_A4L 10/31/2016
Source: NE, OS

Figure 7 Soil - Agricultural Land Classification Pre 1988

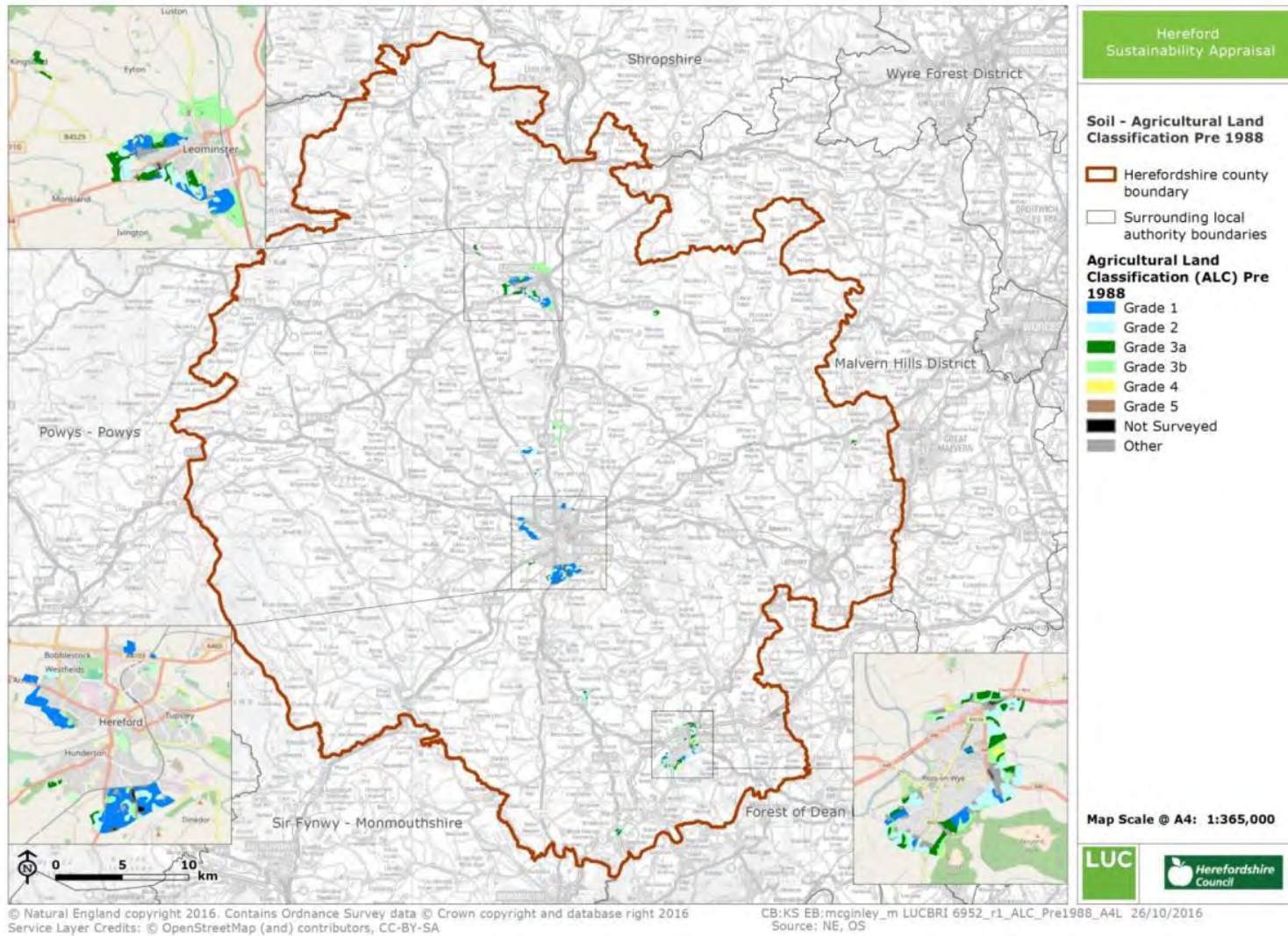


Figure 8 Heritage Designations

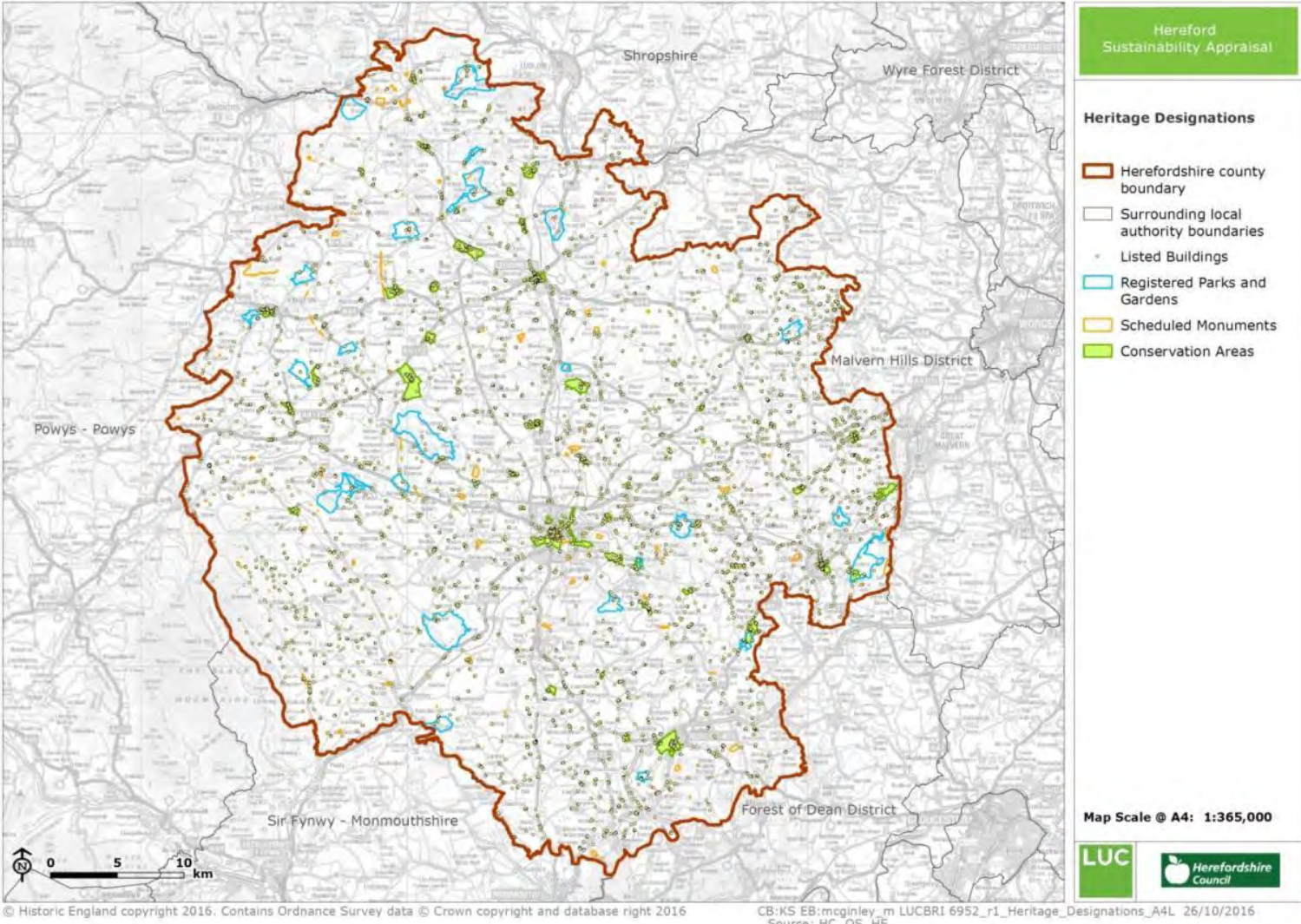
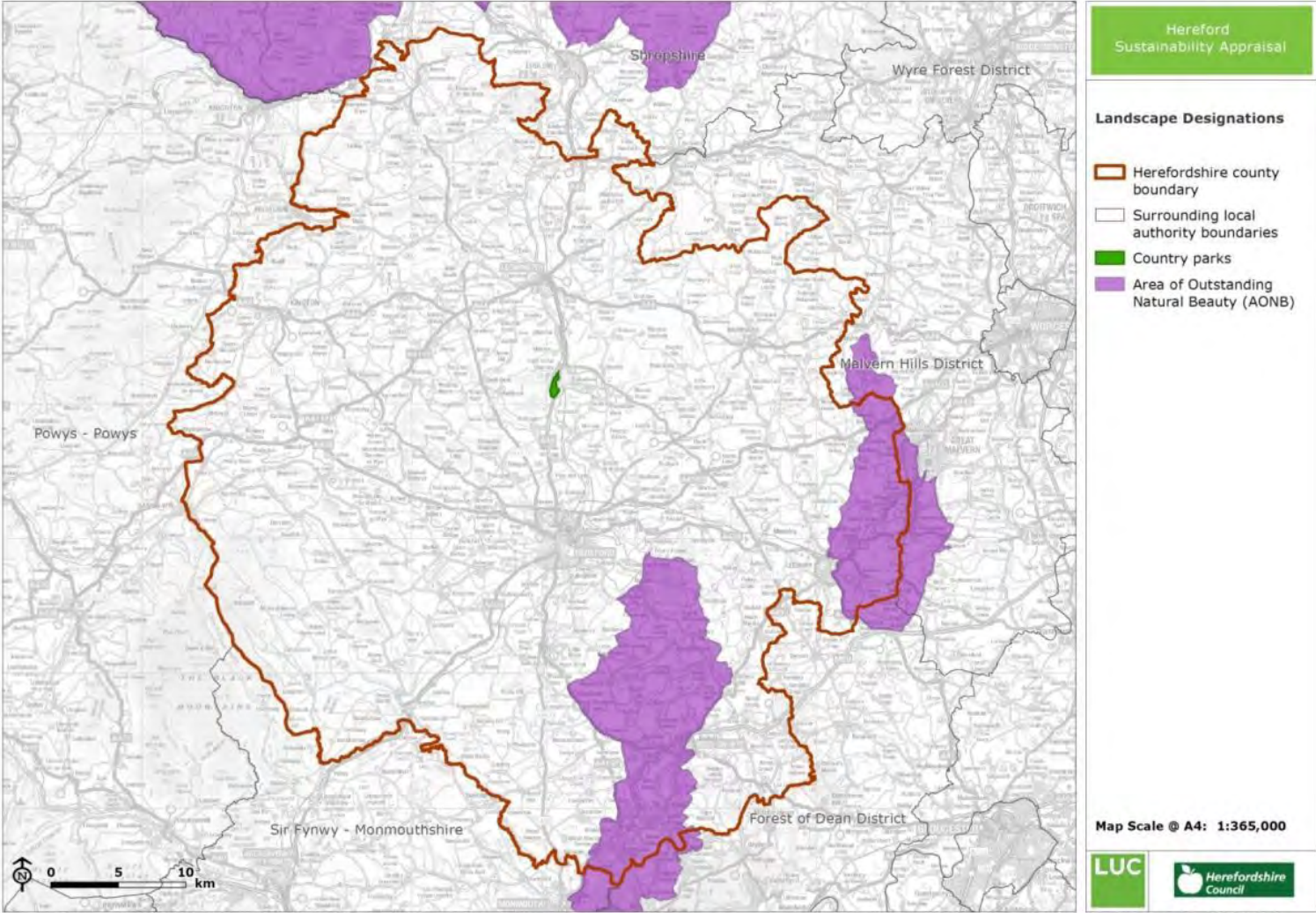


Figure 9 Landscape Designations



© Natural England copyright 2016. Contains Ordnance Survey data © Crown copyright and database right 2016 CB:KS EB:mccinley_m LUCBRI 6952_r1_Landscape_Designations_A4L 26/10/2016 Source: NE, OS

Figure 10 Index of Multiple Deprivation

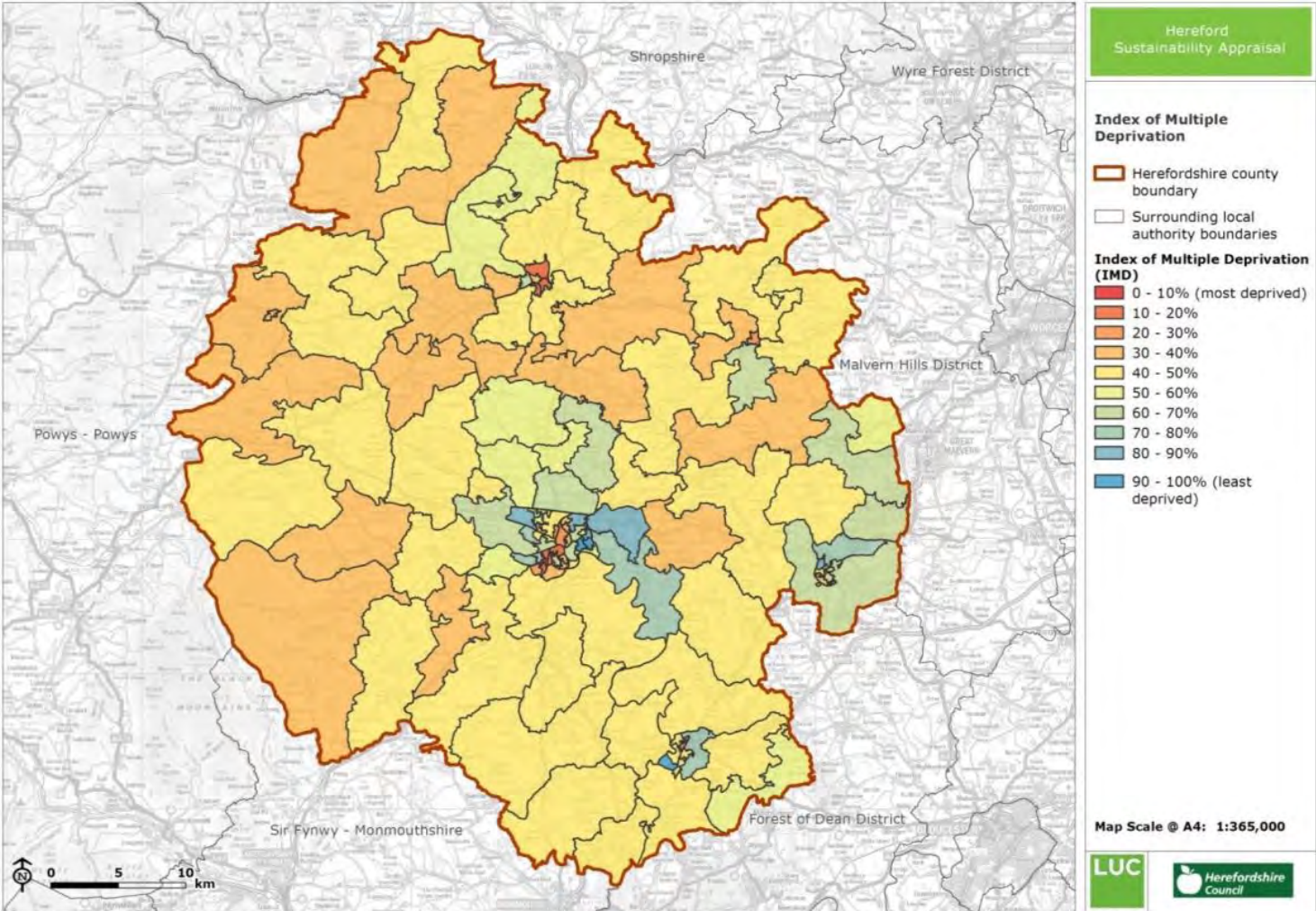


Figure 11 Services

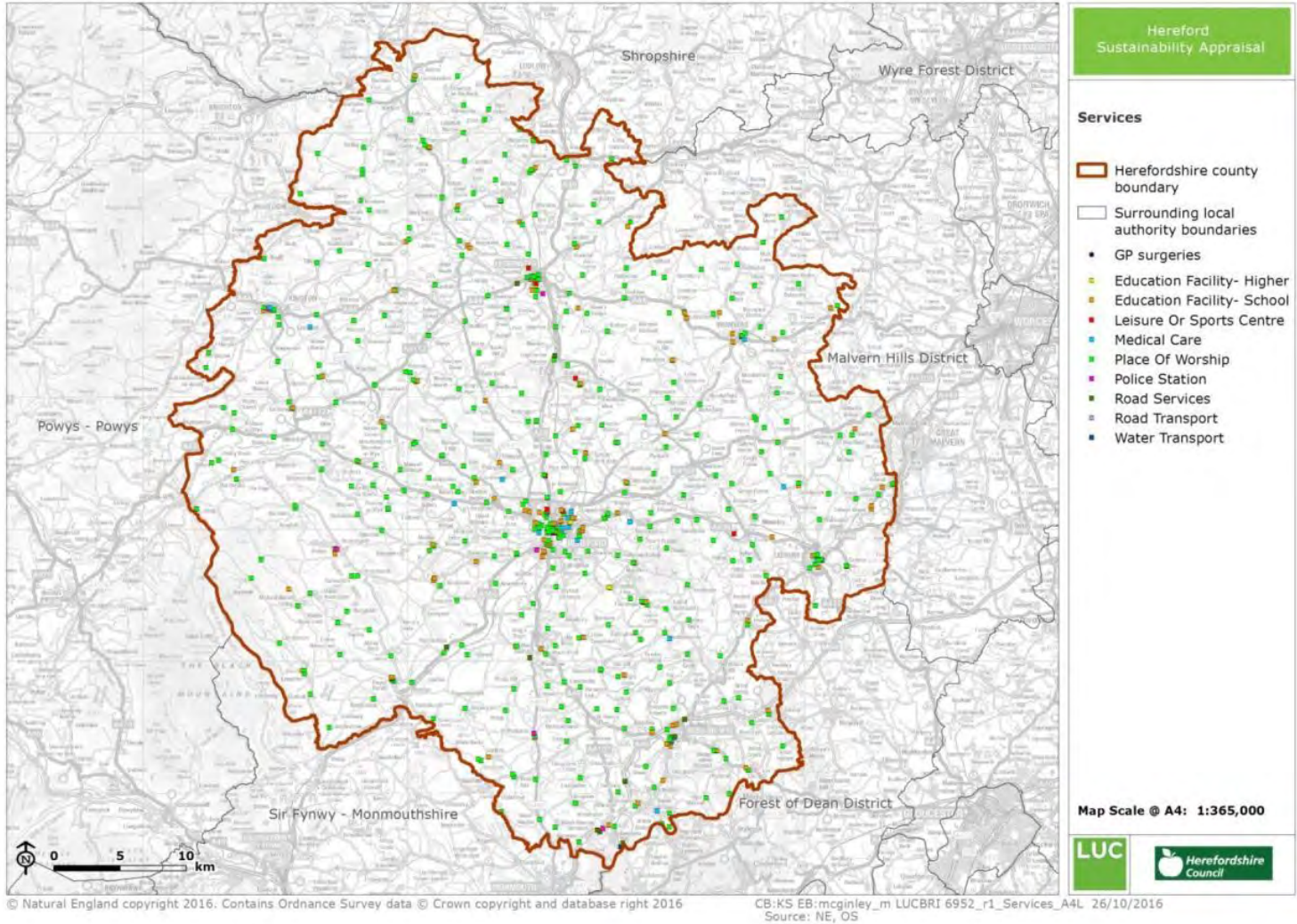
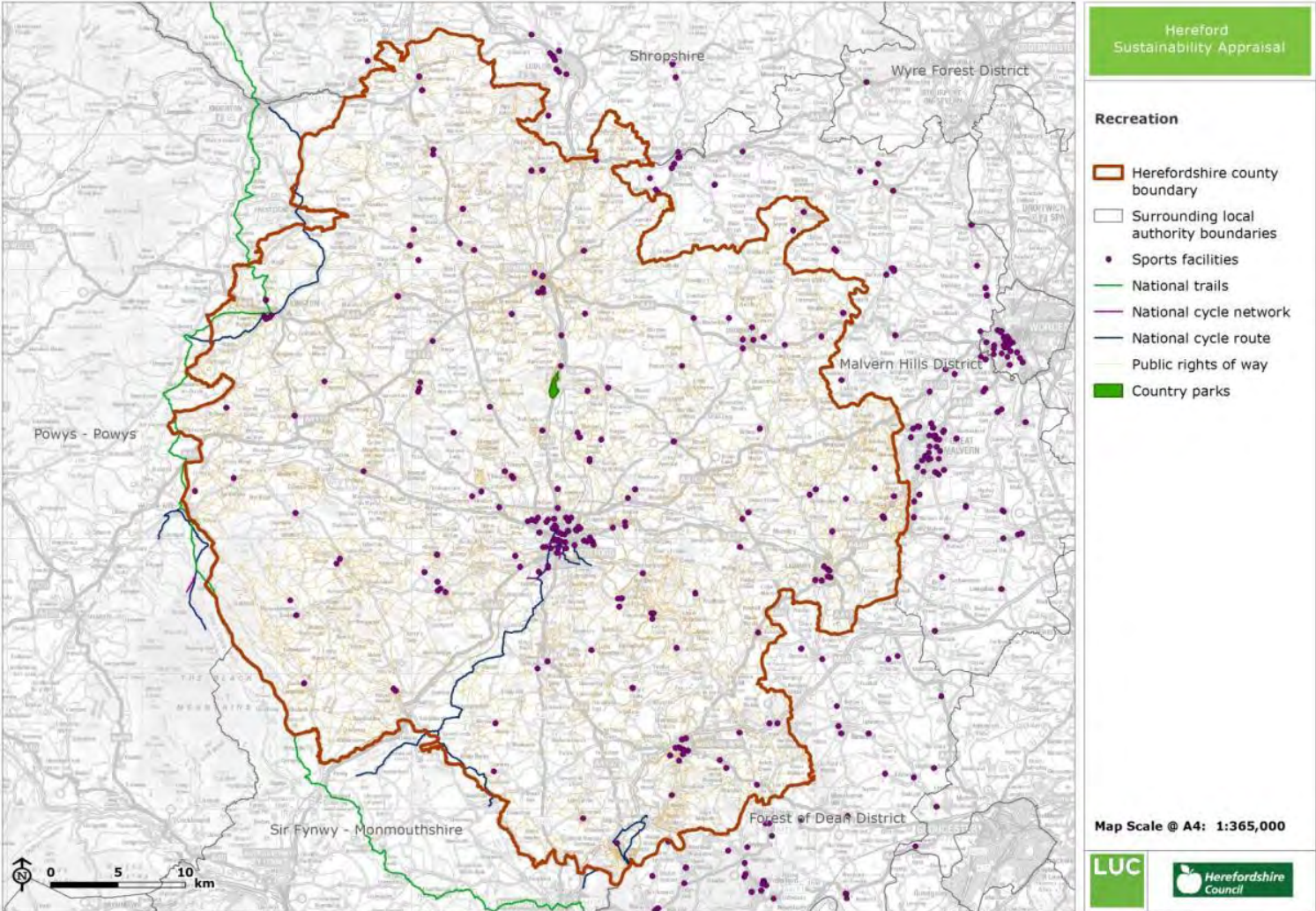


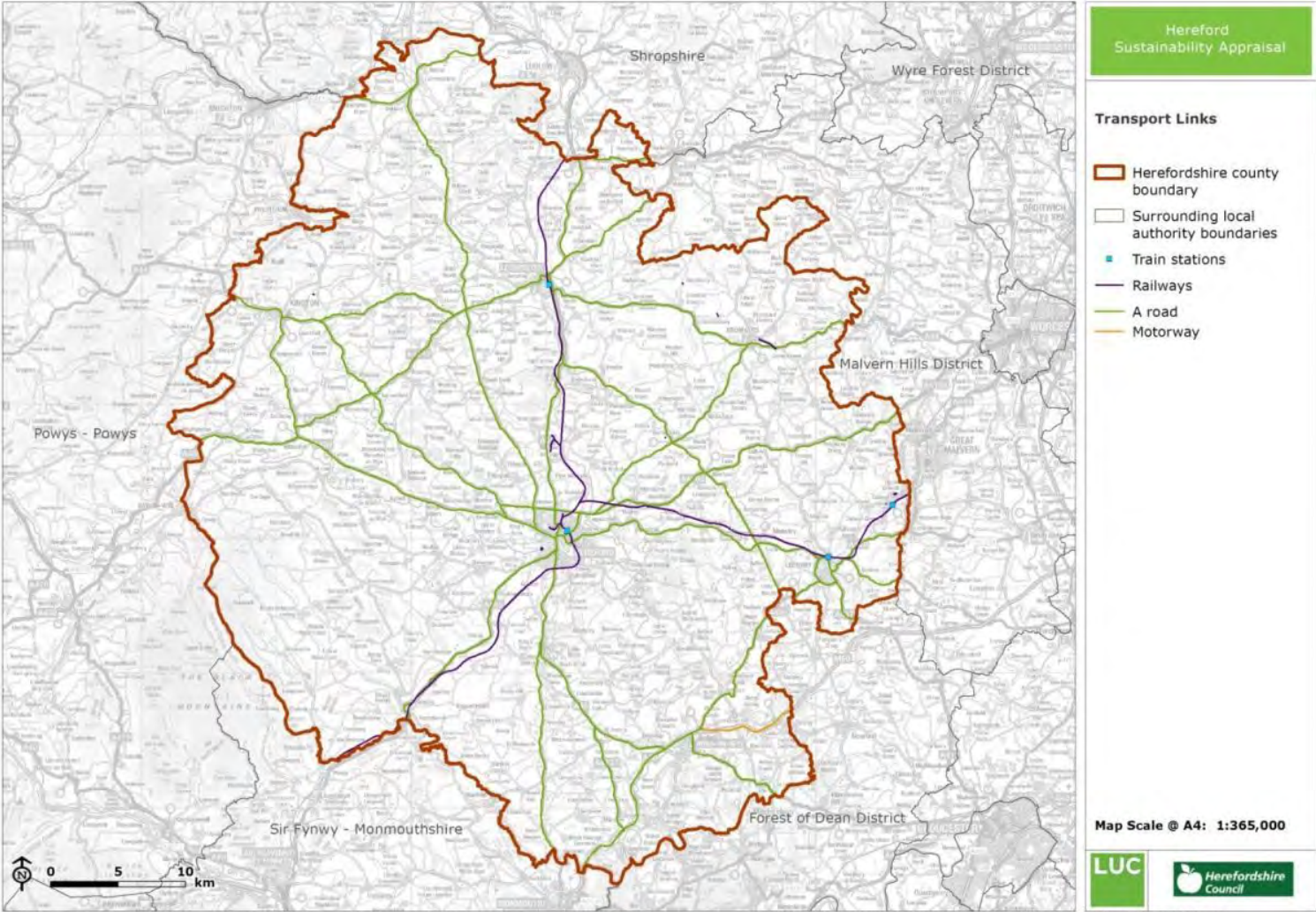
Figure 12 Recreation



© Natural England copyright 2016. Contains Ordnance Survey data © Crown copyright and database right 2016

CB:KS EB:Stenson K LUCBRI 6952 r1 Recreation A4L 10/31/2016
 Source: NE, OS, Sports England, Sustrans, HC

Figure 13 Transport Links



Contains Ordnance Survey data © Crown copyright and database right 2016

CB:KS EB:mcginley_m LUCBRI 6952_r1_Transport_Links_A4L 26/10/2016
Source: OS

Appendix 3

Baseline Information

Environmental baseline information

Mineral resources

The following baseline information in relation to mineral resources in Herefordshire is derived from the Minerals Needs Assessment (MNA) Update (Hendeca, 2018)² which has been prepared to support the Herefordshire Minerals and Waste Local Plan. The MNA Update 2018 has forecast demand for each of the minerals present in Herefordshire.

Mineral resources in Herefordshire are relatively limited in range, primarily consisting of aggregates for use in construction but also a small amount of building stone. The commercially exploitable minerals available for extraction from within Herefordshire include sand, gravel, crushed rock, and sandstone.

- Sand and gravel:
 - river terrace deposits are mainly found in the river valleys of the Wye, Lugg and Arrow; and,
 - glacial deposits are present in the north and west of Herefordshire.
- Crushed rock:
 - silurian limestone is found on the western side of the Malvern Hills and Ledbury, the Woolhope dome and in the north-west of the county in the Presteigne/Aymestrey areas;
 - carboniferous limestone is present to the south-west of Ross-on-Wye in the northern flanks of the Forest of Dean; and,
 - igneous and metamorphic rock occurs in the Malvern Hills.
- Sandstone:
 - sandstone occurs extensively throughout much of Herefordshire and several operational quarries exist in the north, west and south of the county. The output is of particular importance for heritage restoration and in creating authentic character for new-build properties.

Coal was formerly worked in two locations:

- the southern tip of the Wyre Forest Coalfield, which extended into the north of the county, near the boundary with Worcestershire and Shropshire; and,
- a small outlier site of the Forest of Dean Coalfield which extends into southern Herefordshire.

There are currently several, known, active quarries in Herefordshire:

- Wellington Quarry – sand and gravel.
- Leinthall Quarry – limestone.
- Perton Quarry – limestone.
- Llandraw Delve – sandstone.
- Callow Delve – sandstone.
- Black Hill Delve – sandstone.
- Pennsylvani Delves – sandstone.
- Sunnybank Delve – sandstone.
- Westonhill Wood Delve - sandstone.

There are a number of quarries that are known to be inactive, closed or mothballed, and some for which the activity status is unknown (see **Table 4**).

² Hendeca, 2018. Minerals Need Assessment Update 2018.

Table 4 Quarries in Herefordshire

Name	Status
Sand and gravel	
Hereford Quarry	Closed
Lugg Bridge Quarry	Closed
Upper Lyde Quarry	Permitted but not operational
Shobdon Quarry	Inactive
Wellington Quarry	Active
St Donat's Quarry	Restored
Limestone	
Leinthall Quarry	Active
Loxter Ashbed Quarry	Restored
Nash Scar Quarry	Mothballed
Perton Quarry	Active
Sandstone	
Brakes Farm Delve	Abandoned
Callow Delve	Active
Black Hill Delve(formerly Coed Major Quarry)	Active
High House Delve	Unsuccessful, never exploited
Hunters Post Delve	Closed, naturally regenerated
Llandraw Delve	Active
Pennsylvania Delves	Active
Sunnybank Delve	Active
Tybubach Delve	Abandoned, to be restored
Westonhill Wood Delves	Active
Coal	
Howle Hill Quarry	Restored

Sand and gravel

There are three sand and gravel quarries permitted within Herefordshire: Upper Lyde Quarry; Shobdon Quarry; and, Wellington Quarry. However, only Wellington Quarry is operational. This may be reflective of market demand for sand and gravel within Herefordshire, a factor that would be largely outside the influence of the HMWLP.

During 2009, 111,000 tonnes of sand and gravel was sourced and consumed in Herefordshire, with 5,000 and 6,000 tonnes of sand and gravel from Herefordshire destined for the West Midlands and elsewhere in the UK, respectively³. Within the same year, 67,000 tonnes of sand and gravel was imported, resulting in a total of 178,000 tonnes consumed within Herefordshire.

The NPPF seeks a minimum landbank of seven years for sand and gravel provision. With permitted reserves in Herefordshire standing at 2,750,000 tonnes in 2016, a ten year average annual sales figures of 130,000 tonnes gives a landbank of 21.2 years for sand and gravel under current conditions.

The MNA Update 2018 forecasted future sand and gravel demand for the plan period (to 2031) based on GVA growth, population projections and on the Core Strategy housing trajectory. In

³ Department for Communities and Local Government, 2011. *Aggregate minerals survey for England and Wales: 2009 results*. Available at: <https://www.gov.uk/government/collections/minerals>

order to provide some longevity beyond that year, the MNA Update 2018 has also considered up to 2035. A number of different scenarios were considered, resulting in a range of landbank availability at the end of the plan period and 2035 (see **Table 5**).

Depending on the forecast shown (referring to the current level of import as a basis), there may be sufficient permitted reserves of sand and gravel remaining for the lifetime of the HMWLP, or there may be an insufficient landbank remaining at the end of the plan period. By 2035, if the highest GVA growth projection is used, the landbank will have fallen to zero. Using population growth as the basis for a forecast, the landbank would still be sufficient in 2035.

If Herefordshire was to be self-sufficient in sand and gravel, **Table 5** shows that only the forecast using population growth (with a demand at 4.6 tonnes of aggregate per head) as a basis predicts a sufficient landbank for sand and gravel in 2031 if no new reserves are permitted, and this will fall below the minimum 7 year requirement by 2035.

Table 5 Forecast for future sand and gravel demand

Scenario	Current level of import		Self-sufficient	
	Landbank (years)	Tonnage for 7 year landbank	Landbank (years)	Tonnage for 7 year landbank
Scenario 2031				
GVA growth House of Commons	3.1	605,000	0	4,553,000
Population growth, demand at 4.6 tonnes of aggregate per head	35.4	0	8.3	0
Core Strategy housing trajectory	4.3	407,000	0	4,113,000
Scenario 2035				
GVA growth House of Commons	0	1,397,000	0	6,277,000
Population growth, demand at 4.6 tonnes of aggregate per head	30.8	0	4.1	350,000
Core Strategy housing trajectory	n/a	n/a	n/a	n/a

Crushed Rock

There is, generally, a lack of data in relation to crushed rock within Herefordshire.

During 2009, 421,000 tonnes of crushed rock was imported, a decrease of 1,101,000 tonnes since 2005. There was also a significant drop in the consumption of crushed rock from 2005 (1,691,000 tonnes) to 2009 levels (435,000 tonnes). The drop in the import and consumption of crushed rock during this period can be accounted for by the economic recession.

The NPPF seeks a minimum landbank of ten years for crushed rock provision. Due to the unavailability of data on current sales and permitted reserves for Herefordshire, it is not possible to calculate the landbank solely within the county.

The MNA Update 2018 refers to two methods which have been considered for forecasting the potential future demand for crushed rock. Calculations have been made for two different scenarios, on the basis of whether Herefordshire continues to rely on imports of crushed rock to

meet 76% of its needs, and on the basis of Herefordshire being self-sufficient in crushed rock production. However, these methods have produced widely varying forecasts of demand for 2017-2031, from 1.9 million tonnes to nearly 21 million tonnes, as set out in **Table 6**. This is reflective of the extent of uncertainties in minerals data.

Table 6 Main findings from selected forecasts of future crushed rock demand, assuming current level of import and self-sufficiency

Scenario	Assuming imports at current level		Assuming self-sufficiency	
	Demand	Demand	Demand	Demand
	2017-2031	2017-2035	2017-2031	2017-2035
Population growth, demand at 4.6 tonnes of aggregate per head	1,928,000	2,463,000	8,033,000	10,263,000
Core Strategy housing trajectory	5,017,000	n/a	20,903,000	n/a

Of the two operational quarries for crushed rock in Herefordshire, one is required to cease operations by 2027, and therefore could not, currently, contribute to meeting demand after that date. The other quarry can continue operations until 2042. There may, therefore, be a need for additional reserves of crushed rock to be permitted during the lifetime of the HMWLP.

Secondary and recycled aggregates

Secondary and recycled aggregates have an important role to play in Herefordshire as they can support the delivery of the circular economy, reducing the demand for extraction of primary aggregates such as those described above. Secondary aggregates are minerals that are produced as a by-product of other mining or quarrying activities or as a by-product of an industrial process. Recycled aggregates arise from several sources, notably from the demolition of buildings or from civil engineering works such as asphalt planings from road resurfacing and railway track ballast. The use of recycled and secondary aggregates helps to make use of inert waste from construction and demolition and therefore moves waste management up the waste hierarchy.

Herefordshire is a net importer of aggregates and overwhelmingly so for crushed rock, therefore, recycled aggregates could have an important role to play in reducing the reliance on imports of aggregates.

There are currently no industrial processes in Herefordshire which are known to produce secondary aggregates⁴. Recycled aggregates are currently being produced within Herefordshire, principally at the CD&E waste recovery facility at Former Lugg Bridge Quarry.

The WNA Update 2018 has produced two forecasts for arisings of CD&E waste in Herefordshire based on the forecast change in GVA for the construction sector in Herefordshire and Worcestershire produced by Experian. The two forecasts are:

- Scenario 1: Growth based on Herefordshire and Worcestershire construction sector GVA growth and a baseline figure of 357,000 tonnes in 2015 (calculated as per capita arisings using an UK per capita multiplier); and
- Scenario 2: Growth based on Herefordshire and Worcestershire construction sector GVA growth and a baseline figure of 379,000 tonnes in 2015 (calculated as per capita arisings using an England waste per capita multiplier).

The forecasts were broken down into the key elements of the CD&E waste stream (non-hazardous construction and demolition waste, hazardous construction and demolition waste and dredging

⁴ Hendeca, 2018. Minerals Need Assessment Update 2018

and excavation spoils) based on relative proportions estimated in 2014 and assuming that these remain constant.

However, not necessarily all of the arisings will be recovered for recycling. The latest figures from Defra⁵ shows that 91.4% of non-hazardous construction and demolition waste was recovered in England in 2014 and 89.9% for the UK as a whole. Therefore, in considering this data for minerals purposes the arisings forecast by the WNA Update 2018 have been reduced in accordance with these rates.

The forecasts indicate that up to 200,000 tonnes of recycled aggregates could be gained from non-hazardous construction and demolition waste in Herefordshire by 2035. In simple terms, i.e. not considering all the different recycled aggregates produced, this could be provided by the proposed extensions to the operations undertaken at the Former Lugg Bridge site.

Building stone

Building stone includes material used for roofing, walling, flagstones or ornamental purposes. The primary building stone extracted in Herefordshire is sandstone.

Within Herefordshire, sandstone is worked in small quarries called delves, generally by hand with just one or a few workers on site.

The available data on building stone indicates that supply and demand has remained constant over the previous years, at 2,000 tonnes per year. There are several active sandstone delves for building stone within the county. Some delves have lots of stone remaining, whilst some are coming close to an end. In addition, some of these have planning conditions imposed which require operations to cease within the lifetime of the Minerals and Waste Local Plan. Llandraw Delve is required to cease working by 2021 and Tybubach Delve by 2030 at the latest. Westonhill Wood Delves is required to cease working by 2039, beyond the plan period. Therefore, with the closure of some quarries before the end of the plan period, there may be a need to facilitate new permissions, or extended time periods, for the winning and working of building stone to continue to meet demand.

Conventional and unconventional hydrocarbons

Small deposits of **building clay** are shown in the British Geological Survey (BGS) data. However, there is no evidence of building clay having been worked in Herefordshire. This mineral is not considered further.

Herefordshire has two areas that have been worked in the past for **coal**. However, such conventional extraction of hydrocarbons has ceased in Herefordshire and shows little sign of recommencing. In 1999, the BGS reported that the hydrocarbon prospectivity of the area was low.

There is just one area of **coal bed methane** in Herefordshire, a hydrocarbon that would be extracted via unconventional methods. It is located in the south of the country around Whitchurch, Welsh Newton, Goodrich, Kerne Bridge, Hope Mansell and Marstow. Coalbed methane is produced during the process of coal formation. The gas is either absorbed onto the coal or dispersed into pore spaces around the coal seam.

The area of coal bed methane was identified for a Petroleum Exploration and Development Licence (PEDL) referred to as SO51a by the Oil and Gas Authority (OGA). The area is classified as coalbed methane, although the PEDL is for any hydrocarbon and is not limited to this classification.

It was offered to South West Energy Limited, but the Oil and Gas Authority has confirmed that the licence was not taken up, and therefore no PEDL was awarded in this area. It is possible that the block could be subject to future licensing rounds, although the Oil and Gas Authority has not been able to provide any timeframe for that.

In addition, the *Infrastructure Act 2015*⁶ prevents hydraulic fracturing activity taking place anywhere at a depth less than 1,000 metres below the ground surface. Secondary legislation⁷ to

⁵ Defra, 2016. Statistics on Waste Notice: Non-Hazardous Construction and Demolition Waste UK and England 2010-2014.

⁶ Infrastructure Act 2015

the *Infrastructure Act 2015* prevents high volume hydraulic fracturing beneath National Parks, AONB, protected groundwater source areas and World Heritage Sites, unless it would take place at a depth in excess of 1,200 metres below the surface.

Activities relating to hydrocarbon (whether conventional or unconventional) exploration, appraisal or extraction are not reasonably expected to take place in the short term, and unlikely within the plan period. It is therefore still possible, although perhaps unlikely, that hydrocarbon operations will take place in Herefordshire within the plan period, although this may depend on future developments in technology that could make the deposits more attractive.

Trend/key sustainability issue:

There may be a need for additional reserves of sand and gravel working, crushed rock and building stone during the lifetime of the Minerals and Waste Local Plan to continue to meet demand. However, the scenarios presented in the MNA Update 2018 have produced varying forecasts of demand, reflecting the extent of uncertainties in minerals data.

Recycled aggregates could have an increasingly important role to play in reducing reliance on imports of aggregates and supporting the delivery of the circular economy, particularly sand and gravel.

The exploration, appraisal or extraction of hydrocarbons within the county is not reasonably expected to take place in the short to medium term and unlikely within the plan period.

Waste

Waste is generated from a wide range of domestic, commercial and industrial activities. The main waste types considered in this report are:

- Local Authority Collected Waste (LACW) - household waste and other similar wastes collected by the local authorities);
- Commercial and industrial (C&I) waste - waste from businesses and manufacturing companies;
- Construction, demolition and excavation (CD&E) waste - produced through a wide range of building projects, from home renovations to major redevelopments;
- Hazardous waste - generally considered hazardous if it is harmful to humans or the environment, particularly through being toxic, corrosive or irritant, examples of hazardous waste include asbestos, chemicals such as brake fluid or print toner;
- Agricultural waste - includes both natural, such as animal manure, animal bedding and crop waste and non-natural, such as plastic wrapping or bottles;
- Low level (non-nuclear industry) radioactive waste - such as is used in research laboratories; and,
- Waste water – used water from any combination of human activities such as domestic, industrial, commercial or agricultural activities.

The amount and type of waste produced, and the ways in which it is managed, partly reflects the environmental, social and economic characteristics of the area. Concentrated populations and commercial/industrial activities, as are found in Hereford and the main county towns are the largest producers of waste, and this is generally reflected in the pattern of waste management facilities within Herefordshire. Anaerobic digestion and biological treatment facilities are dispersed around the county, reflecting its agricultural sector.

According to the WNA Update 2018⁸, permitted facilities located in Herefordshire managed 416,000 tonnes of waste in 2016, compared to nearly 407,500 in 2015. The single largest tonnage is municipal waste (principally wastes from households); representing 47% of the wastes

⁷ The Onshore Hydraulic Fracturing (Protected Areas) Regulations 2016

⁸ Hendeca, 2018. Waste Need Assessment Update 2018

managed at permitted facilities in Herefordshire. The second largest tonnage is formed by agriculture and processing wastes (22%) fairly closely followed by construction and demolition wastes (19%). All the other wastes added together still only comprise about 11% of all wastes managed at the permitted facilities in Herefordshire.

The majority (85%) of waste received at permitted facilities in Herefordshire originated in Herefordshire; an increase on the 77% reported in 2015. This suggests either that Herefordshire is managing more wastes within the county than last year, or that more waste is being deposited at permitted facilities. It also suggests that Herefordshire is reasonably self-sufficient, at least in waste transfer capacity.

There are 39 waste management facilities operating in Herefordshire comprising of five physical treatment facilities, three non-hazardous waste transfer facilities, one non-hazardous transfer and treatment facility, one hazardous waste transfer facility, six civic amenity facilities, six car breaker facilities, three metal recycling facilities, four biological treatment facilities, one deposit of waste to land (recovery) facility, one clinical waste transfer facility and eight anaerobic digestion treatment facilities.

While there is a range of waste management collection, re-use and recycling capacity permitted in Herefordshire addressing a variety of wastes, there are no residual waste management facilities such as energy from waste plant or landfill sites. This means that there is a reliance on such facilities outside the county, including a significant proportion of strategic capacity that has been **jointly procured with Worcestershire County Council to manage 'local authority collected waste' (LACW)**.

Over the last four years there has been a notable increase in the capacity and waste inputs to permitted facilities. This is predominantly driven by an increase in biological treatment and anaerobic digestion facilities, with permitted capacity increasing by approximately 700kt and waste inputs by 110kt⁹.

In addition, Herefordshire Council also operate a kerbside recycling scheme. Households have a black wheeled bin for general rubbish and a green wheeled bin for mixed recycling. There are six recycling centres in Herefordshire¹⁰ including:

- Hereford.
- Bromyard.
- Kington.
- Ledbury.
- Leominster.
- Ross-on-Wye.

The disposal of commercial vehicles and trailers (CVT) requires a permit.

Local Authority Collected Waste (LACW)

In this context, LACW is further categorised as:

- household waste – waste collected from households within the local authority;
- trade waste – the commercial and industrial waste collected by the local authority (e.g. from local businesses);
- other municipal wastes – for example, waste from parks and gardens, or fly tipping; and
- non-municipal fractions – principally construction and demolition waste.

In 2016/17, Herefordshire Council collected 89,968 tonnes of LACW, of which 78,232 tonnes was household waste. Of the total household waste collected 32,244 tonnes was sent for recycling, composting or reuse (41%). Approximately 11,737 tonnes of non-household waste was collected

⁹ Hendeca, 2018. Waste Need Assessment Update 2018

¹⁰ Herefordshire, 2018. *Tips and recycling centres*. Available at: https://www.herefordshire.gov.uk/directory/13/household_recycling_centres

of which 6,515 tonnes was sent for recycling, composting or reuse. Of the total amount of LACW 38,759 tonnes (43%) was sent for recycling, composting or reuse with 50,554 tonnes (57%) not sent for recycling¹¹. The trend in annual LACW arisings in Herefordshire is consistent with arisings in England, with total rising dropping to a low point in 2013 followed by a gradual increase.

Table 7 below summarises the LACW arisings in Herefordshire for the period between 2011 and March 2017.

Table 7 LACW arisings in Herefordshire 2011-March 2017 (tonnes)

		2011	2012	2013	2014	2015	2016	2017
Waste from households	Recycled/composted/recovery	32,454	32,054	31,210	32,610	33,717	31,129	32,244
	Disposal	44,399	44,335	43,563	43,251	42,039	46,596	45,988
	Total waste from households	76,854	76,389	74,773	75,861	75,755	77,725	78,232
Waste not from households	Recycled/composted/recovery	6,395	5,713	5,732	5,592	6,212	6,321	6,515
	Disposal	3,133	3,367	3,452	3,636	3,933	3,957	5,222
	Total waste not from households	9,528	9,079	9,184	9,228	10,145	10,278	11,737
Total LACW		87,184	86,146	84,723	85,800	86,631	88,004	89,968

The WNA Update 2018¹² forecasted the LACW waste arisings for 2020, 2025, 2030 and 2035 using the 2016 data on LACW waste arisings (see **Table 8**).

Table 8 Summary of LACW forecasts for years 2020, 2025, 2030 and 2035, based on 2016 data (rounded to nearest 1,000 tonnes)

	Baseline	Forecast			
	2016	2020	2025	2030	2035
Local Authority Collected Waste (LACW)	89,600	90,300 to 100,300	93,500 to 108,300	96,300 to 116,400	98,600 to 124,400

Table 9 below summarises the estimated LACW waste management requirements over the plan period and beyond (up until 2035), based on the forecasts presented in the WNA Update 2018¹³.

Table 9 Estimated LACW management requirement over the plan period, and up to 2035

		YEAR	2020	2025	2030	2035	Mid-point
Waste	Management route	Tonnes (per annum)					
LACW	Biological			None	8,000 to 13,000		10,500
	Recycling			None	22,000 to 27,000		25,000
	Residual	No additional capacity requirement identified					

¹¹ DEFRA (2017) ENV18 – Local authority collected waste: annual results tables

¹² Hendeca, 2018. Waste Need Assessment Update 2018

¹³ *Ibid*

The WNA Update 2018¹⁴ concluded that there is sufficient capacity at biological treatment facilities in Herefordshire and the energy from waste facility at Hartlebury (outside Herefordshire) to meet the forecasted increase in waste. However, there may be pressure on the current contracted capacity of the materials recovery facility at Norton, depending on the amount of recyclable material sent to the EnviroSort Facility from Worcestershire, particularly towards the end of the Plan period. This is reflected in the table above.

Commercial and Industrial (C&I) waste

Commercial waste is generated from the business sector, including the activities of wholesalers, catering establishments, shops and offices. Industrial waste is generated by factories and industrial facilities. These wastes have different properties but are often, and within this report, **considered together, using the abbreviation 'C&I waste'**. The majority of C&I waste is managed directly through contracts held between the business and the waste management industry, however some is collected by the local authority.

There are notable gaps in current knowledge about the total amount of C&I wastes, because currently data are not captured from all waste management facilities or about waste producing sectors. In addition, most recent estimates have been at the national level and the data has not been broken down to the regional or waste planning authority level. Furthermore, no new national estimates for C&I waste have been published since 2017.

Table 10 summarises the estimated C&I waste arisings estimated for Herefordshire between 2013 and 2016, as presented in the WNA Update 2018¹⁵.

Table 10 Estimated C&I waste arisings, Herefordshire, 2013 to 2016

Element	Tonnes			
	2013	2014	2015	2016
Estimated C&I waste arisings managed through permitted facilities in England with Herefordshire identified as origin	95,000	89,000	104,000	118,000
'Not Codeable' Waste	0 to 29,3000	0 to 22,500	0 to 30,400	0 to 36,200
Waste handled at Exemption Facilities	8,000	8,000	8,000	8,000
Waste sent directly to permitted facilities in Wales	4,650	4,000	4,000	5,740
Total (rounded to nearest 1,000 tonnes)	108,000 to 137,000	101,000 to 124,000	116,000 to 146,000	132,000 to 168,000

As the table above shows, there has been a steady increase in the quantity of waste, with origins in the West Midlands, handled through permitted facilities between 2013 and 2016. This suggests that overall waste arisings are increasing, which is potentially linked to the improvement in the economy as it recovers from the recession. However, it is important to note that for waste with the origin identified as the West Midlands 25% to 30% of the waste cannot be attributed to the sub-region or WPA level. As a result, uncertainties in relation to the total amount of C&I wastes in Herefordshire remain.

The WNA Update 2018¹⁶ forecasted the C&I waste arisings for 2020, 2025, 2030 and 2035 (see **Table 11**).

Table 11 Summary of C&I waste forecasts for years 2020, 2025, 2030 and 2035, based on 2016 data (rounded to nearest 1,000 tonnes)

	Baseline	Forecast			
	2016	2020	2025	2030	2035
Commercial and	132,000 to	143,000 to	156,000 to	171,000 to	187,000 to

¹⁴ Hendeca, 2018. Waste Need Assessment Update 2018

¹⁵ *Ibid*

¹⁶ *Ibid*

	Baseline	Forecast			
industrial (C&I) waste	168,00	174,00	178,000	184,000	190,000

Table 12 below summarises the C&I waste management requirements over the plan period and beyond (up until 2035), based on data presented in the WNA Update 2018¹⁷.

Table 12 Estimated C&I waste management requirement over the plan period, and up to 2035

Waste	Management route	YEAR	2020	2025	2030	2035	Mid-point
		Tonnes (per annum)					
C&I	Biological	No additional capacity requirement identified					
	Recycling	No additional capacity requirement identified					
	Residual	63,000 to 87,000	56,000 to 71,200	53,500 to 64,400	58,400 to 66,500	65,000	

Based on these figures, the WNA Update 2018¹⁸ concludes that the remaining potential capacity requirement for C&I wastes could be provided within a single facility or through a small number of facilities operating on an industrial estate.

Construction, demolition and excavation (CD&E) waste

Construction and demolition wastes are those generated through building projects; whilst excavation waste refers to wastes produced from earth moving activities. The abbreviation used is 'CD&E waste'. CD&E wastes are generally managed through private contracts held directly with the waste management industry. However, a small amount is captured in LACW, principally through deposits made at household waste recycling centres (HWRC) also known as civic amenity sites.

There are notable gaps in current knowledge about the total amount of CD&E wastes, because currently data are not captured from all waste management facilities or about waste producing sectors. In addition, most recent estimates have been at the national level and the data has not been broken down to the regional or waste planning authority level.

Herefordshire's population in 2014 was 187,200¹⁹ which would give an estimated CD&E waste arising of:

- 370,000 tonnes (rounded) in 2014, based on the England CD&E waste per capita estimates of 1,980kg/capita; or
- 348,000 tonnes (rounded) in 2014, based on the UK CD&E waste per capita estimates of 1,864kg/capita.

Following from the above, the WNA Update 2018²⁰ estimates a range of 357,000 to 379,000 tonnes for 2015 and 2016 depending on whether England or UK estimates of kg/capita are used. No new national estimates for CD&E wastes have been published since 2017.

The WNA Update 2018²¹ forecasted the CD&E waste arisings for 2020, 2025, 2030 and 2035 (see **Table 13**).

¹⁷ Hendeca, 2018. Waste Need Assessment Update 2018

¹⁸ *Ibid*

¹⁹ Facts & Figures about Herefordshire, 2018. *Population and demographics*. Available at: <https://factsandfigures.herefordshire.gov.uk/about-a-topic/population-and-demographics>

²⁰ Hendeca, 2018. Waste Need Assessment Update 2018

²¹ *Ibid*

Table 13 Summary of CD&E waste forecasts for years 2020, 2025, 2030 and 2035, based on 2016 data (rounded to nearest 1,000 tonnes)

		Baseline	Forecast			
		2016	2020	2025	2030	2035
Construction, demolition and excavation (CD&E) waste	Total	357,000 to 379,000	360,000 to 382,000	396,000 to 421,000	426,000 to 453,000	454,000 to 482,000
	Non-hazardous	163,000 to 173,000	164,000 to 174,000	181,000 to 192,000	195,000 to 207,000	207,000 to 220,000

Table 14 below summarises the CD&E waste management requirements over the plan period and beyond (up until 2035) based on a 90% recovery rate²².

Table 14 Estimated CD&E waste management requirement over the plan period, and up to 2035 (assuming a 90% recovery rate)

		YEAR	2020	2025	2030	2035	Mid-point
Waste	Management route	Tonnes (per annum)					
CD&E	Recovery		147,600 to 156,000	162,900 to 172,800	175,500 to 186,300	186,300 to 198,000	173,250
	Inert disposal		16,400 to 17,400	18,100 to 19,200	19,500 to 20,700	20,700 to 22,000	19,250

In addition, additional land fill capacity of 15,000 to 17,000 tonnes per annum may be required, depending on the level of recovery achieved²³.

Based on the information presented above, the WNA Update 2018²⁴ concluded that strategic locations for the future management of non-hazardous CD&E waste will need to be considered.

Agricultural waste

Agricultural waste is that generated by the agriculture sector, principally on farms.

The WNA Update 2018²⁵ recognised that there are notable gaps in current knowledge about the total amount of agricultural wastes, because limited data is captured as wastes generated on farms are often managed under exemptions. In Herefordshire, 635 farms/locations on farms have registered exemptions, with multiple exemptions registered at many farms.

According to the WNA Update 2018²⁶, the estimated agricultural waste arisings for 2015 and 2016 were 6,000 to 8,000 tonnes. No new national estimates for agricultural wastes have been published since the WNA 2017 and consequently the analysis of arisings has not been updated.

Based on this low level of generation, agricultural wastes should continue to be appropriately managed by the private sector.

Hazardous waste

Hazardous waste relates to wastes that could cause harm to human health or the environment due to the presence or concentration of dangerous substances.

Hazardous wastes are a subset of other waste streams such as LACW, C&I wastes and CD&E wastes. The WNA Update 2018²⁷ estimated that hazardous wastes accounted for 7,750 tonnes and 10,500 tonnes of the total waste streams in Herefordshire in 2015 and 2016, respectively.

²² Hendeca, 2018. Waste Need Assessment Update 2018

²³ *Ibid*

²⁴ *Ibid*

²⁵ *Ibid*

²⁶ *Ibid*

Based on the small quantities generated in Herefordshire, there would not appear to be a strategic need for new hazardous waste management capacity within the plan area. In the unlikely event that additional waste management capacity would be required, smaller facilities should be capable of being accommodated on industrial estates and similar locations.

Radioactive waste

Radioactive waste is not a controlled waste under UK legislation. However, waste planning authorities are required to consider disposal requirements that may arise for this waste stream in preparing their development plans.

The Environment Agency regulates the disposal of radioactive waste. Two organisations within Herefordshire have permits (known as authorisations) that allow the accumulation and disposal of radioactive waste²⁸.

Waste water

Welsh Water and Severn Trent Water provide waste water treatment services within Herefordshire, with both companies operating waste water treatment works. There are no insurmountable constraints identified in the period up to 2031, as the relevant waste water management companies are aware of growth forecast in the Core Strategy and have made appropriate provision in their investment plans²⁹.

Trend/key sustainability issue:

Over the last four years there has been a notable increase in the capacity and waste inputs to permitted facilities in Herefordshire. While there is a range of waste management collection, re-use and recycling capacity permitted in Herefordshire addressing a variety of wastes, there are no residual waste management facilities. As a result, there is a reliance on such facilities outside the **county to process the proportion of 'local authority collected waste' that is not recycled, composted or reused.**

Waste generation is expected to increase if households (and population) are projected to grow. This has different impacts on the various waste streams identified in Herefordshire:

- There is the risk of potential pressure on the current contracted capacity of the materials recovery facility at Norton to process additional LACW waste, particularly towards the end of the Plan period.
- Additional commercial and industrial (C&I) waste management capacity may be required, although this could be provided within a single facility or through a small number of facilities operating on an industrial estate.
- Assuming a 90% recovery target for non-hazardous Construction & Demolition (C&D) wastes, strategic locations for the future management of non-hazardous construction and demolition (CD&E) waste will need to be considered.
- Based on the low level of generation, there would not appear to be a strategic need for agricultural wastes, low level radioactive waste and new hazardous waste management capacity within Herefordshire.
- There are no insurmountable constraints identified in the period up to 2031 in relation to waste water.

Climate change, energy consumption and energy efficiency

Climate change has the potential not only to affect the environment but also the social and economic aspects of life in Herefordshire. Although the precise nature of environmental changes is not fully understood, changes to precipitation patterns (and river flow) and flooding have implications for the location, longevity and viability of mineral and waste developments.

²⁷ Hendeca, 2018. Waste Need Assessment Update 2018

²⁸ *Ibid*

²⁹ Hendeca, 2018. Draft MWLP

Conversely, predicted dry, hot summers will cause problems of low flows for some of the rivers in the area which will increase demand for water potentially affecting availability for minerals operations. Extreme weather events may also increase disruption to supply chains, infrastructure and transport of minerals and waste.

The [UK Climate Projections](#) (UKCP09) show that West Midlands temperatures are projected to increase, particularly over the summer months when the mean temperature could increase by 2.9°C (2050s high emissions scenario). Another key change is the intensification of a seasonal variation in rainfall patterns. The winter months are projected to become wetter with 14% more rainfall (2050s high emissions scenario), whilst summers are projected to become 17% drier under the same scenario and probability level. In addition to this seasonal variation, the intensity of rainfall events is also anticipated to increase, with the amount of precipitation falling on the wettest days in both winter and summer increasing (2050s high emissions scenario, central estimate). The projections also suggest small changes in relative humidity in summer and winter, a reduction in summer cloud cover and an increase in winter cloud cover.

The future changes in climate may have significant impacts across a range of sectors in North West England including health, infrastructure, economy and biodiversity³⁰. According to the [UK Climate Change Risk Assessment 2017](#) there are a number of risks and opportunities arising from climate change for the UK which are outlined in **Table 15**.

Table 15 Risks and opportunities arising from climate change in the UK

Risks	Opportunities
The number of incidents of food poisoning, heat stress and heat related deaths may increase in summer.	Milder winters should reduce the costs of heating homes and other buildings, helping to alleviate fuel poverty and reducing the number of winter deaths from cold.
Domestic energy use may increase during summer months as refrigeration and air conditioning demand increases.	Domestic energy use may decrease in winter due to higher temperatures.
Wetter winters and more intense rainfall events throughout the year may result in a higher risk of flooding from rivers.	Warmer and drier summers may benefit the recreation and tourism economy.
More intense rainstorms may in some locations result in the amount of surface water runoff exceeding the capacity of drainage systems, consequently leading to more frequent and severe localised flash flooding.	UK agriculture and forestry may be able to increase production with warmer weather and longer growing seasons.
More frequent storms and floods may cause increased damage to property and infrastructure, resulting in significant economic costs.	
Periods of drought in summer could lead to soil shrinking and subsidence, causing damage to buildings and transport networks. Drought may also impact negatively on agriculture, industry and biodiversity.	
Warmer and drier summers are likely to affect the quantity and quality of water supply, which will need careful management.	
The changing climate will impact on the behaviour and distribution of species, and may encourage the spread of invasive species.	

The latest DECC figures³¹ are set out in **Table 16** and show generally decreasing trends for CO₂ emissions (kilotonnes) in Herefordshire from 2005 to 2014. The decreasing trend in emissions

³⁰ EcoCities, 2010. The future climate of North West England. Available at: http://media.adaptingmanchester.co.uk/ccc.cdn.faelix.net/sites/default/files/ThefutureclimateofNorthWestEngland_000.pdf

³¹ DECC (2018) UK local authority and regional carbon dioxide emissions national statistics: 2005-2016

reflects the decrease in overall emissions for the UK during this period driven mainly by reductions in emissions from power stations, industrial combustion and passenger cars. The reduction from power stations is driven by change in the fuel mix used for electricity generation with a reduction in the amount of coal, which is a carbon intensive fuel. Emissions for many Local Authorities are heavily influenced by activities at industrial sites, and changes at a single site can have a big impact on emissions trends³². Minerals and waste management developments have the scope to contribute to greenhouse gas emissions and climate change, for example, through the transportation of minerals and waste by road.

In addition, the latest DECC figures³³ for energy consumption (in thousand tonnes of oil equivalent (ktoe)) per consuming sector and household in Herefordshire are set out in **Table 17**. There has been a general decreasing trend in energy consumption as well as CO₂ emissions. This also reflects a steady year on year decrease in total energy consumption in Great Britain with the only anomaly occurring between 2009 and 2010, when there was a small increase due to the particularly cold winter that year, resulting in a higher consumption of fuels used for heating purposes. The decreasing trend has been attributed to the impacts of the recession, as well as energy efficiency improvements and declining use particularly in the industrial and commercial sector of petroleum products and gas³⁴.

Table 16 Source of CO₂ Emissions in Herefordshire per Sector (2005-2016)

Year	Industry and Commercial (kt CO ₂)	Domestic (kt CO ₂)	Transport (kt CO ₂)	Total (kt CO ₂)
2005	760.6	479.5	467.2	1,658.0
2006	751.5	484.0	458.9	1,641.5
2007	726.7	468.1	465.1	1,598.2
2008	705.4	468.3	443.0	1,552.2
2009	645.2	431.8	429.9	1,440.4
2010	699.9	465.3	428.5	1,522.6
2011	651.6	398.8	417.9	1,393.4
2012	650.6	422.6	411.6	1,406.6
2013	645.8	408.1	408.3	1,383.0
2014	645.9	347.6	418.1	1,328.0
2015	584.0	332.9	425.9	1,254.7
2016	534.7	314.5	433.9	1,195.3

Table 17 Energy Consumption in Herefordshire per Sector (2005-2015)

Year	Industry and Commercial (ktoe)	Domestic (ktoe)	Transport (ktoe)	Total (ktoe)
2005	160.2	139.3	135.8	444.2
2006	152.8	137.9	136.8	436.6
2007	149.9	133.3	139.4	431.8
2008	143.3	131.9	136.9	422.9
2009	138.0	125.8	134.1	409.7
2010	146.0	130.1	132.5	423.6

³² Local Authority carbon dioxide emissions estimates 2013. Statistical Release. DECC, June 2015.

³³ DECC (2017) Total final energy consumption at regional and local authority level

³⁴ Sub-national total final energy consumption statistics. Regional and local authority level statistics (2012 data), DECC, September 2014.

Year	Industry and Commercial (ktoe)	Domestic (ktoe)	Transport (ktoe)	Total (ktoe)
2011	136.6	117.1	130.0	396.9
2012	132.3	117.1	127.8	395.6
2013	137.9	116.1	127.3	403.6
2014	143.9	112.0	130.2	406.5
2015	138.4	110.4	130.9	392.8

Trend/key sustainability issue:

Herefordshire is likely to experience more extreme impacts as a result of climate change – wetter winters with greater incidences of flooding, and warmer, drier summers with greater incidences of low flow rivers (during the summer months). The predicted dry, hot summers will cause problems of low flows for some of the rivers in the area which will increase demand for water potentially affecting availability for minerals operations. Extreme weather events may also increase disruption to supply chains, infrastructure and transport of minerals and waste.

However, climate change also presents a number of opportunities - milder winters should reduce the costs of heating homes and other buildings, helping to alleviate fuel poverty and reducing the number of winter deaths from cold. In addition, UK agriculture and forestry may be able to increase production with warmer weather and longer growing seasons.

Biodiversity and geodiversity

Herefordshire is a largely rural county and as such has a rich biodiversity offering. The countryside consists primarily of arable fields, interspersed with pasture and woodland. There are four sites of international importance for nature conservation within Herefordshire: the River Wye Special Area of Conservation (SAC), which passes through the county from Symonds Yat to Clifford, via Hereford; Wye Valley Woodlands SAC, which sit alongside the River Wye in the southern tip of the county; Downton Gorge SAC and River Clun SAC, which lie in the northern part of the county.

Table 18 outlines the key environmental problems/threats relevant to the internationally designated biodiversity sites within Herefordshire. Although not within Herefordshire, the key environmental/problems associated with the Wye Valley and Forest of Dean Bat Sites SAC are also identified in Table 18 as the HRA Screening Report identified the potential for likely significant effects on this SAC as a result of physical damage and loss of offsite functionally linked woodland habitat present within site allocation M12.

Table 18 Key environmental/threats affecting European Sites

Site name	Key environmental problems/threats
European Sites within (or partly within) Herefordshire	
River Wye SAC	Natural England's Site Improvement Plan for the SAC identifies the main threats facing the site to be the decreasing quality of water ; small scale development impacting the hydromorphology and character ; the invasive species of Himalayan Balsam, Japanese Knotweed, Giant Hogweed and hybrids; lack of communication between management levels; incompatibility between fishery management and SAC features; outdated water abstraction agreement; pressure from public access ; the risk of atmospheric nitrogen deposition which exceeds site relevant critical loads; inappropriate scrub control ; undergrazing ; and poor site management when undertaking works on Network Rail's assets.
Downton Gorge SAC	Natural England's Site Improvement Plan for the SAC identifies the main threats facing the site to be the adverse impact of deer ; the over rearing of pheasants by game management ; a few small scale issues with forestry and woodland management ; the spread of disease ; several invasive species ; and the risk of atmospheric nitrogen deposition which exceeds site relevant critical loads.

Site name	Key environmental problems/threats
River Clun SAC	Natural England's Site Improvement Plan for the SAC identifies the main threats facing the site to be the increasing pressure of siltation ; loss of suitable habitats and food sources through water pollution ; low breeding success of Freshwater Mussel; the spread of disease ; physical modification ; the invasive species of Himalayan balsam; and the change in land management .
Wye Valley Woodlands SAC	Natural England's Site Improvement Plan for the SAC identifies the main threats facing the site to be the increasing pressure of deer ; poor woodland management ; spread of invasive species ; habitat fragmentation which risks hindering the ecosystem; and the risk of atmospheric nitrogen deposition which exceeds site relevant critical loads.
European Sites outside of Herefordshire but within 15km	
Wye Valley and Forest of Dean Bat Sites SAC	Natural England's Site Improvement Plan for the SAC identifies the main threats facing the site to be the structural deterioration of roosts sites that are in inhabited privately owned buildings vulnerable to disturbance; and pressure from public access .

There are three National Nature Reserves (NNRs) within Herefordshire: Moccas Park, The Flits and Downton Gorge. There are also a number of NNRs bordering, or close to the boundary of Herefordshire, to the south and west. There are seven Local Nature Reserves (LNRs) in Herefordshire. These include Queenswood, which is part of the Queenswood Country Park. Queenswood LNR partially coincides with Dinmore Hill Woods SSSI. There are a total of 77 Sites of Special Scientific Interest (SSSIs) in Herefordshire. Some of these are cross-boundary, including the River Teme SSSI, River Wye SSSI, Malvern Hills SSSI and Upper Wye Gorge SSSI. Of the 5,769.97ha of SSSIs, 38.05% is in favourable condition; 40.01% is in unfavourable but recovering condition; 19.89% is in unfavourable condition; and, 2.04% is classed as being in declining condition³⁵. Due to the high number of SSSIs, the majority of the county falls within a SSSI Impact Risk Zone.

There are 685 Local Wildlife Sites (LWS) in Herefordshire. These are spread across the county but there is generally a higher density of LWS in the west. There are also 122 Local Geological Sites in the county.

The county includes a range of Biodiversity Action Plan (BAP) Priority Habitats, including lowland deciduous woodland, lowland meadows and pasture and lowland dry acid grassland.

Herefordshire Council has published an Ecological Network map³⁶, which identifies the key areas for biodiversity in the county. This shows core areas for biodiversity, buffers around those core areas, biodiversity corridors and stepping stones, and sustainable land use areas (areas with proposals for habitat restoration or creation).

Trend/key sustainability issue:

Herefordshire contains many areas of high ecological value including sites of international and national importance which are under pressure from farming, forestry and new development.

Key environmental problems/threats identified in relation to European Sites likely to be affected by the HMWLP include habitat fragmentation, the spread of invasive species and diseases, pressure from public access, poor site and game management, structural deterioration of roost sites, decreasing quality of water, siltation, physical modification, nitrogen deposition, inappropriate scrub control and undergrazing.

In light of these pressures, there is a need for biodiversity net gain where any damages to biodiversity are balanced by at least equivalent gains for biodiversity.

Air quality

The Environment Act 1995 introduced the National Air Quality Strategy and the requirement for local authorities to determine if statutory air quality objectives (AQOs) are likely to be exceeded. All local authorities now report to DEFRA on an annual basis, and have the obligation to declare

³⁵ Natural England (2018) Designated Sites View [online] Available at: <https://designatedsites.naturalengland.org.uk/ReportConditionSummary.aspx?countyCode=20&ReportTitle=HEREFORDSHIRE>

³⁶ Herefordshire Biological Records Centre (2013) Herefordshire Ecological Network Map

Air Quality Management Areas (AQMAs) and develop action plans for improvement of air quality if objectives are likely to be exceeded.

There are two designated AQMAs in Herefordshire. The annual mean objective for nitrogen dioxide is being exceeded at Hereford AQMA. This AQMA consists of part of the A49 corridor from Holmer Road in the north, to Belmont Road in the south and extending along New Market/Blueschool Street and along Eign Street³⁷.

Bargates Leominster AQMA encompasses the junction between the A44 Bargates and B4361 Dishley Street/Cursneh Road in Leominster. The annual mean objective for nitrogen dioxide is being exceeded at this AQMA³⁸.

Trend/key sustainability issue:

Poor air quality is experienced in certain parts of Herefordshire due to high concentrations of nitrogen oxide, and two AQMAs have been declared in Hereford and Leominster.

Water resources and flooding

Herefordshire lies largely within the River Wye management catchment. Operational river catchments in the county include the Wye catchment, the Arrow, Lugg and Frome catchment and the Monnow catchment:

- The River Wye flows through Herefordshire and Hereford city. The source of the River Wye lies in the Cambrian Mountains and the river flows from the west to the southeast of the county. After leaving Herefordshire, the river flows south to join the River Severn.
- The River Lugg flows from Pool Hill in Wales, through Leominster to join the River Wye near Hampton Bishop.
- The River Arrow flows from west to east to join the River Lugg just south of Leominster.
- The River Dore flows through Hereford to join the River Monnow, which forms the southern border of the county.
- **The River Monnow runs along the county's southern boundary to join the River Wye near Symonds Yat.**
- The River Frome flows roughly north to south through Herefordshire, passing through Bromyard then joining the River Lugg east of Hereford.

Information from the Environment Agency details the peak river flow allowances by river basin districts in England showing the anticipated changes to peak flow with consideration for climate change allowances. **Table 19** below shows the peak river flow allowances for the River Severn Basin for a period which includes the plan period using the period 1961 to 1990³⁹ as a baseline.

Table 19 Peak river flow allowances for the River Severn Basin

Allowance category	Total potential change anticipated for the '2020s' (2015 to 2039)
Upper end (based on scenarios at 90 th percentile)	20%
Higher central (based on scenarios at 70 th percentile)	15%
Central (based on scenarios at 50 th percentile)	10%

Information available from Herefordshire County Council relating to fluvial risk identifies that there is a need to consider different climate change allowances (peak river flows) to inform the location, impacts and design of a scheme depending on development vulnerability. The Environment Agency has produced maps which set out the likelihood of surface water flooding in

³⁷ DEFRA (date not available) AQMAs declared by Herefordshire Council. Available at: https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=126 [accessed 23/07/18]

³⁸ *Ibid.*

³⁹ Environment Agency (2017) Flood risk assessments: climate change allowances [online] Available at: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#high-allowances>

England and these should also be taken account of when considering other types of flooding. A small area of the county, around Ledbury, lies within the Severn Vale management catchment and the Leadon operational catchment. The River Leadon flows north to south through Ledbury, to join the River Severn⁴⁰. In addition, the River Teme which runs from west to east in the north of the county is also within the catchment of the River Severn. The River Teme is also designated as a Surface Water Safeguarding Zone to ensure the protection of drinking water in the area.

The Wye catchment contains 22 natural rivers, all of which **have achieved 'good' chemical status**. Only 5 of these rivers are recorded as being of good ecological status, whilst 11 are of moderate and six of poor status. A total of 21 rivers are expected to achieve good status by 2027. The main reasons for not achieving good status are: sewage discharge, barriers to fish migration, impoundment for water storage, and changes in nutrient and sediment loads from agriculture⁴¹. The River Wye SAC Nutrient Management Plan⁴² is seeking to address issues of water quality, particularly in terms of nutrient loading.

The Arrow, Lugg and Frome catchment contains 35 natural rivers. Whilst all of these have achieved good chemical status, only six have achieved good ecological status. Of the remaining rivers, 18 are of moderate ecological status, eight are of poor and three are of bad status. By 2027, all rivers are expected to achieve good status.

The Monnow catchment contains ten natural rivers. All of these have achieved good chemical status, but only three have achieved good ecological status. Six rivers are of moderate ecological status and one is of poor status. All ten rivers are expected to achieve good status by 2027.

The Leadon catchment contains eight natural rivers. Whilst all of these are of good chemical status, none are of good ecological status. Five rivers are of moderate ecological status and three of poor status, but a total of seven rivers are expected to achieve good status by 2027.

There are a number of groundwater Source Protection Zones within Herefordshire to ensure that rivers and aquifers are protected from pollution and are principally located at the River Lugg and River Wye.

Fluvial flooding (from rivers) is the largest single source of flooding in Herefordshire, accounting for 25% of flooding. Land drainage accounts for 11% of flooding and the source of flooding is unknown for 43% of reported flooding. It is thought that the unknown sources of flooding are likely to be largely fluvial or land drainage. Herefordshire Council has prepared a Strategic Flood Risk Assessment to assess levels and types of flooding in the county⁴³ and a new Assessment is currently being prepared to inform the HMWLP. Areas of high flood risk are primarily within the Lower Wye sub-catchment (including Hereford) extending along the River Wye between Belmont and Monmouth, with a significant amount of properties at risk from flooding events (1,253 properties). The catchment with the greatest proportional flood risk is the Upper Lugg with approximately 17% of properties at risk. Smaller settlements with a significant history of flood disruption include Bosbury, Eardisland, Ewyas Harold, Hampton Bishop, Hereford, Kington, Leintwardine, Leominster and Ross-on-Wye.

Water supply and wastewater treatment in Herefordshire is managed by **Welsh Water (Dŵr Cymru)** and Severn Trent Water. There are nine Wastewater Treatment Works in the county (at Eign, Rotherwas, Fownhope, Kingsland, Leominster, Ivington, Ross-on-Wye, Bredwardine and Kington), one Sewage Pumping Station at Bromyard, and three Water Pumping Stations (at Leominster, Ross-on-Wye, and Bredwardine). **Welsh Water's 2014 Water Resources Management Plan**⁴⁴ identifies Hereford as being in water surplus (i.e. supply is greater than demand) and identifies a number of measures to increase the efficiency of water provision⁴⁵. According to the

⁴⁰ Environment Agency (2016) Catchment Data Explorer, available at: <http://environment.data.gov.uk/catchment-planning/ManagementCatchment/3077>, accessed: 18/10/16

⁴¹ *Ibid*

⁴² Environment Agency & Natural England, 2014. *River Wye SAC Nutrient Management Plan Evidence base and options appraisal*. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/361793/River_Wye_NMP_final_report_v3_14052014.pdf

⁴³ Herefordshire Council (2009) Strategic Flood Risk Assessment

⁴⁴ Welsh Water, 2014. *Welsh Water Water Resources management Plan*. Available at: <https://www.dwrcymru.com/en/My-Water/Water-Resources/Water-Resource-Management-Plan.aspx>

⁴⁵ Dŵr Cymru Welsh Water (2014) Water Resources Management Plan

Water Cycle Study⁴⁶, the River Teme, Leadon and Wye are all designated Sensitive Waters (susceptible to eutrophication) under the Urban Wastewater Treatment Directive. It also identifies that there are five Environment Agency defined Water Resource Management Units in **Herefordshire (four in the Wye system and one in the Teme), all of which are at 'No Water Available' status which means that at the fully licenced uptake scenario, the ecological river flow objective would be compromised.** This means that any increases in demand for water e.g. population growth will have to be met through a combination of: decreased demand; increased efficiency of use; licence revocations; and seasonally or flow constrained licences. The River Wye Abstraction Licensing Strategy⁴⁷ demonstrates that there will be water available for licensing in the entirety of the catchment, with the exception of in dry, low rainfall conditions, when abstraction licenses are likely to be restricted. New consumptive licenses in the Wye are likely to be restricted.

Trend/key sustainability issue:

Significant improvements to water quality in the country are required to meet the target of 'Good Ecological Status' in all natural water bodies, or 'Good Ecological Potential' in all heavily modified water bodies, as required by the Water Framework Directive.

Herefordshire is affected to varying degrees by fluvial and surface water flooding which is primarily associated with the River Wye. The effects of climate change may increase the incidence of flooding within the county.

Although there are a number of Source Protection Zones in Herefordshire, groundwater is vulnerable to contamination and pollution from the storage, treatment and processing of waste and mineral exploitation.

Soil

The Agricultural Land Classification (ALC) system⁴⁸ provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations to agricultural use. The principal factors influencing agricultural production are soil wetness, drought and erosion. These factors together with interactions between them form the basis for classifying land use into one of five grades, where 1 describes land as excellent (land of high agricultural quality and potential) and 5 describes land as very poor (land of low agricultural quality and potential). **Land falling outside these scores is deemed to be 'primarily in non-agricultural use', or 'predominantly in urban use'. Grade 3 can be further separated into grades 3a and 3b, although this requires further local surveys and therefore such data is only available for small areas. Grades 1, 2 and 3a are considered to be best and most versatile agricultural land.**

The majority of Herefordshire consists of grade 2 and grade 3 agricultural land. There are scattered areas of grade 1 land and some areas of lower quality, grades 4 and 5 land, particularly in the west of the county. Larger settlements, such as Hereford, Leominster, Ross-on-Wye, Ledbury and Bromyard do not have associated ALC grades as they are predominantly in urban use. However, the Pre-1988 Agricultural Land Classification does identify areas comprising Grade 1, 2 and 3a best and most versatile agricultural land in Hereford, Lower Bullingham and Homer & Shelwick.

Trend/key sustainability issue:

The majority of Herefordshire consists of best and most versatile agricultural land, which could be lost to development.

⁴⁶ Herefordshire Council (2009 and 2015) Water Cycle Study as updated by the Water Cycle Study - Addendum [pdf]. Available at: https://www.herefordshire.gov.uk/downloads/file/2271/water_cycle_study_2009_and_at_https://www.herefordshire.gov.uk/download/downloads/id/4866/water_cycle_study_addendum.pdf [Accessed 5 June 2018]

⁴⁷ Environment Agency (2016) River Wye Abstraction Licensing Strategy

⁴⁸ Natural England (2013) Agricultural Land Classification (ALC) system

Historic environment

There are a number of heritage designations in Herefordshire, from individual buildings and structures of interest to the distinctive character of the market towns. Herefordshire possesses a rich historic environment which includes numerous Iron Age hill forts, sites of Roman towns, defensive features such as **Offa's Dyke and the border castles, together with some of the best** preserved traditional framed buildings in the country. The richness of the historic environment is reflected in the number of designated heritage assets encompassing a wealth of listed buildings, registered historic parks and gardens, scheduled ancient monuments and conservation areas. There are 5,897 Listed Buildings in Herefordshire (127 Grade 1, 357 Grade II* and 5,413 Grade II), 33 of which are on the Heritage at Risk register. There are 265 Scheduled Monuments, 30 of which are on the Heritage at Risk register and 25 Registered Parks and Gardens (11 Grade II* and 14 Grade II), of which only Shobdon is considered to be at risk. There are also 179 Unregistered Parks and Gardens in Herefordshire.

The Hereford Area of Archaeological Importance (AAI) encompasses the whole zone within the medieval walls of the city, together with some of the early suburbs and former monastic precincts. It was designated an AAI in 1983 (under the 1979 Ancient Monuments and Archaeological Areas Act⁴⁹) due to the national significance of the historic core of Hereford. Hereford is only one of five national AAIs.

There are 64 Conservation Areas in Herefordshire, including country house estates, the historic centre of Hereford, market towns and villages. Of these, two are listed on the Heritage at Risk Register namely Kington, Ross-on-Wye / Bridstow. Both conservation areas are assessed as being in very bad condition which is deteriorating. Of the total 64 Conservation Areas in the county 31 have either draft brief, brief or full appraisals⁵⁰ completed.

Trend/key sustainability issue:

There are areas of significant historical importance in Herefordshire and aesthetic quality, settings and important views should be preserved and enhanced. These are continuously facing pressures for change.

There are 33 Listed Buildings, 30 Scheduled Monuments, one Registered Park and Garden and two Conservation Areas on the Heritage at Risk Register.

Landscape

Herefordshire is characterised by being a largely rural area, consisting mainly of farmland with scattered woodland and settlements. The area has varied topography, with a number of hills and **ridges. Herefordshire's varied landscape is reflected by the fact that it lies** within five National Character Areas (NCAs):

- 98: Clun and North West Herefordshire Hills.
- 99: Black Mountains and Golden Valley.
- 100: Herefordshire Lowlands.
- 101: Herefordshire Plateau.
- 104: South Herefordshire and Over Severn⁵¹.

The Herefordshire Landscape Character Assessment Supplementary Planning Document (SPD)⁵² identifies a hierarchy of landscape character units below NCA level. There are 12 Sub-Regional Character Areas, the largest and most central of which being Central Herefordshire, which includes the city of Hereford. There are 22 Landscape Types (excluding urban areas) as well as several Landscape Description Units and Land Cover Parcels, which are at a fine-grain scale.

⁴⁹ Ancient Monuments and Archaeological Areas Act 1979

⁵⁰ Herefordshire Council (2011) Review of Conservation Areas within Herefordshire

⁵¹ Natural England (2013-2014) National Character Area profiles

⁵² Herefordshire Council and NHS Herefordshire (2004) Landscape Character Assessment

The Wye Valley Area of Outstanding Natural Beauty (AONB) and the Malvern Hills AONB lie partially within Herefordshire. The Wye Valley AONB broadly follows the River Wye, ending just southeast of Hereford and the Malvern Hills AONB incorporating an area east and northeast of Ledbury. The Shropshire Hills AONB lies almost adjacent to the north-western part of Herefordshire, near Leintwardine. There are no national parks or Green Belt designations in or adjacent to the county.

The Urban Fringe Sensitivity Analysis⁵³ characterises the areas surrounding Hereford and each of the five market towns. It identifies areas of low, medium-low, medium, high-medium and high sensitivity, depending on how vulnerable key landscape characteristics are to change. **Table 20** provides details on the landscape sensitivity analysis of Hereford.

Table 20 Landscape sensitivity analysis of Hereford

Sensitivity	Area
Land with low sensitivity	None of the land around the periphery of Hereford was assessed as falling into the lowest category of sensitivity.
Land with medium-low sensitivity	Holmer – Shelwick Grafton – Lower Bullingham Stretton Sugwas – Huntington
Land with medium sensitivity	Holmer – Shelwick King’s Acre Stretton Sugwas – Huntington Burghill – Pipe & Lyde
Land with high-medium sensitivity	Holmer – Shelwick Aylestone Hill – Hampton Bishop Grafton – Lower Bullingham Breinton King’s Acre Burghill – Pipe & Lyde
Land with high sensitivity	Holmer – Shelwick Aylestone Hill – Hampton Bishop River Wye Corridor Dinedor/Grafton – Lower Bullingham Grafton – Lower Bullingham Ruckhall – Merryhill Belmont Breinton Stretton Sugwas – Huntington

Trend/key sustainability issue:

The county has significant areas of landscape importance including the Wye Valley AONB and the Malvern Hills AONB, and areas of high landscape sensitivity around Hereford.

⁵³ Herefordshire Council and NHS Herefordshire (2010) Urban Fringe Sensitivity Analysis: Hereford and the Market Towns

Social baseline information

Population

The 2011 Census estimated the resident population of Herefordshire to be 183,600 people of which 90,400 are male (49.2%) and 93,300 are female (50.8%)⁵⁴. The latest population estimate for Herefordshire, the predicted mid-2016 population estimate was 189,500, of which 93,900 were male and 95,600 were female⁵⁵. **Almost a third of the county's residents (60,800) live in Hereford city** with one-fifth of the population living in the three largest market towns – including Ross (11,200 people) Leominster (12,000) and Ledbury (10,000). Just over half of the residents (99,900) live in areas classified as rural, with around two in five (79,800) living in the most rural 'village and dispersed'⁵⁶. The population projections for Herefordshire predict that the population will increase to 209,000 by 2039⁵⁷.

According to the mid-2016 population estimates⁵⁸, the highest proportion of residents in Herefordshire is within the 50-54 and 65-69 year age brackets. However, the overall percentage of people in Herefordshire of working age (16-64) (59.6%) is below the national average (64.16%). Nearly 16% of the population is within the age bracket 0-15, which is below the national (16.5%) and regional averages (17.2%). The 15-19 year old age group has the highest internal migration outflow (822), followed by 20-24 year olds (1025) (however, this age bracket also has the highest internal migration inflow). The age brackets with the highest internal net migration are 55-59 year olds and 60-64 year olds.

Herefordshire is also predicted to experience a demographic change with an increasing elderly population. In 2014 those aged over 65 accounted for 1.4% of the population. By 2039 this age group is expected to account for 1.1% of the total population in Herefordshire. This will have implications for the economy, service provision, accommodation and health. There will be 2,919 less people of working age (16-64) in 2039 compared to 2014 (60% in 2014 to 52.4% in 2039) and similarly there will be a decrease in the number of people in the 0-15 year age group (from 16.9% in 2014 to 15.8% in 2039)⁵⁹.

93.7% of Herefordshire's population is white English/Welsh/Scottish/Northern Irish/British. This is less diverse than both the West Midlands (79.2%) and England (79.8%).

Herefordshire has the 4th lowest overall population density in England at 87 people per square kilometre (or 0.87 per hectare), and the population is scattered across the 842 square miles of the county. This is substantially lower than the West Midlands average of 4.3 persons per hectare and the England average of 4.1 persons per hectare⁶⁰ which reflects the rural nature of the county⁶¹.

Trend/key sustainability issue:

The age structure of the population currently shows a higher than average level of retired people. This will have implications for the economy, service provision, accommodation and health.

Large proportion of the population living in rural areas.

Housing

In 2011, Herefordshire contained 81,528 dwellings, of which 24,236 (29.7%) were located in Hereford City and Holmer and Shelwick parishes. Approximately 67.7% of dwellings in Herefordshire are owner occupied, which is slightly higher than the West Midlands (64.9%) and England (63.3%) averages. Only 0.98% of housing in Herefordshire is in shared ownership.

⁵⁴ 2011 Census population figure for Herefordshire Council.

⁵⁵ ONS (2018) Mid-2016 population estimates (by single year of age and sex) for Herefordshire Council.

⁵⁶ Herefordshire Council (2018) Facts and Figures about Herefordshire [online]. Available at:

<https://factsandfigures.herefordshire.gov.uk/about-a-topic/population-and-demographics/population-around-the-county.aspx>

⁵⁷ ONS (2016) Subnational Population Projections for Local Authorities in England – 2014-based projections.

⁵⁸ ONS (2017) Population Estimates Analysis Tool. Available at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2016/relateddata>

⁵⁹ ONS (2016) Subnational Population Projections, Local Authorities in England: SNPP Z1.

⁶⁰ ONS (2011) Population density.

⁶¹ ONS (2011) Population density.

Socially rented accommodation accounts for 13.9% dwellings in Herefordshire, whereas 15.5% of dwellings are privately rented. Herefordshire has less socially rented housing than both the West Midlands (19.0%) and England (17.7%).

Herefordshire has a much higher proportion of detached households (42.3%) than both the West Midlands (23.8%) and England (22.4%). Some 27.8% households are semi-detached and 17.6% are terraced. Flats, maisonettes or apartments make up 11.4% of households and the remainder of households are mobile or temporary structures, shared dwellings or other private rented accommodation⁶². In 2007-2008, 3.3% of dwellings in Herefordshire were vacant (excluding second homes) and 1.1% dwellings were second homes⁶³.

The median house price in Herefordshire in September 2017 was £217,750⁶⁴. Housing in Herefordshire is less affordable than the England average, with a median house price to median earnings ratio of 8.91:1, compared to 7.25:1 across England⁶⁵. Herefordshire has the worst housing affordability ratio in the West Midlands⁶⁶.

The projected number of households in the authority is forecast to grow by 18.3% between 2014 and 2039 which is below the England average (23.1%).

Trend/key sustainability issue:

There is a need for affordable housing, particularly in Hereford, due to average house prices being higher than the regional and national averages.

Social inclusion and deprivation

The English Indices of Deprivation 2015⁶⁷ is a measure of multiple deprivation in small areas or neighbourhoods, called Lower-layer Super Output Areas (LSOA), in England. Seven domains of deprivation are measured: Income Deprivation; Employment Deprivation; Health Deprivation and Disability; Education, Skills and Training Deprivation; Crime; Barriers to Housing and Services; and Living Environment Deprivation. Each domain contains a number of indicators. The seven domains are combined to give a multiple deprivation score. There are 116 LSOAs in Herefordshire and 32,844 nationally⁶⁸.

Herefordshire contains one LSOA in the 10% most deprived in the country (Herefordshire 017D within the Belmont ward). Eight LSOAs are within the 20% most deprived in the country (one within the Leominster North ward, two within the St Martins and Hinton ward, two within the Belmont ward, two within the Leominster South ward, and two within the Ross-on-Wye West ward) with an additional four LSOAs within the 30% most deprived in the country (one within the Central ward, one within the Three Elms ward, one within the Bromyard ward, and one within the Belmont ward).

In 2015, there were an estimated 79,800 households in Herefordshire, 13,300 (16.6%) of which were in fuel poverty. This is higher than fuel poverty rates for the West Midlands region (13.5%) and England (11%). The majority of households affected by fuel poverty live in rural areas⁶⁹. A household is considered to be fuel poor if they have required fuel costs that are above the

⁶² ONS (2011) Neighbourhood Statistics, Households tables OS402EW

⁶³ ONS (2009) Neighbourhood Statistics, Vacant Dwellings (2007-2008)

⁶⁴ ONS (2018) House price to residence-based earnings ratio. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoresidencebasedearningslowerquartileandmedian>

⁶⁵ DCLG (2016) Tables 576 to 578: ratio of house price to earnings (by lower quartile and median by local authority, from 1997)

⁶⁶ Herefordshire Council (2015) Herefordshire Local Plan Core Strategy

⁶⁷ The English Indices of Deprivation (2015), DCLG

⁶⁸ DCLG (2015) Indices of Deprivation 2015 explorer, available at: <http://dclgapps.communities.gov.uk/imd/idmap.html>, accessed 14/10/16

⁶⁹ Herefordshire Council (2018) Facts and Figures about Herefordshire, available at: <https://factsandfigures.herefordshire.gov.uk/about-a-topic/environment-conservation-and-sustainability/fuel-poverty-and-domestic-energy-efficiency.aspx>, accessed 17/10/16

national median level and were they to spend that amount, they would be left with a residual income below the poverty line⁷⁰.

Trend/key sustainability issue:

While the overall level of deprivation is low in the county, there are pockets of high deprivation in Hereford City and Leominster.

A higher than average number of households are considered to be fuel poor in the county.

Health

Residents of Herefordshire experience varied health. About 12% (3,600) of children live in low income families. This is lower than the national average of 16.8% of children living in low income families⁷¹. Life expectancies for both men and women are higher than the national average, at 83.6 years for women and 80.1 years for men⁷². Health inequalities exist, as the average life expectancy for men in the least deprived areas is 3.9 years more than those in the most deprived areas. Women in the least deprived areas can expect to live 2.6 years longer than those in the most deprived areas⁷³.

In 2016/17, the combined proportion of obese and overweight reception year children was 22.9%, 9.8% of whom were obese. For year 6 children, the prevalence of obesity was 19.2%, while the combined figure for obese and overweight children was 34.8%. These figures are in line with national figures⁷⁴. Alcohol-specific hospital stays and levels of smoking for those under 18 are worse than the England average, although these are better than the England average for adults⁷⁵. 63.3% adults in Herefordshire are physically active, which is greater than both the West Midlands (55.5%) and England as a whole (57.0%). Participation in sport at least once a week has generally been increasing year on year since 2011/12⁷⁶.

There are 30 GP surgeries in Herefordshire, four of which are in Hereford. There are also 30 dental surgeries in the county. There are seven hospitals within Herefordshire. The primary NHS hospital is the County Hospital in Hereford, which has an accident and emergency department. This hospital **has been upgraded from 'inadequate' to 'requires improvement'** by the Care Quality Commission⁷⁷. There is one private hospital, two specialist mental health hospitals and three community hospitals⁷⁸.

Trend/key sustainability issue:

Health inequalities exist in Herefordshire between the least and most deprived areas of the county.

The population of Herefordshire performs generally better than the averages for nationally against the majority of health indicators. However, childhood obesity prevalence in Herefordshire is in line with the regional and national averages, and alcohol specific hospital stays and smoking levels for under 18s is worse than the average for England.

⁷⁰ Department for Business, Energy & Industrial Strategy (2016) Fuel poverty statistics, available at: <https://www.gov.uk/government/collections/fuel-poverty-statistics>, accessed 17/10/16

⁷¹ Public Health England (2018) Herefordshire Health Profile 2018, available at: https://fingertips.phe.org.uk/profile/health-profiles/area-search-results/E06000019?place_name=Herefordshire&search_type=parent-area, accessed 27/07/08

⁷² *Ibid*

⁷³ Herefordshire Council (2018) Facts and Figures about Herefordshire, available at: <https://factsandfigures.herefordshire.gov.uk/media/60400/jsna-2018-summary-report-v12.pdf>, accessed 27/07/18

⁷⁴ Public Health England (2018) Herefordshire Health Profile 2018, available at: https://fingertips.phe.org.uk/profile/health-profiles/area-search-results/E06000019?place_name=Herefordshire&search_type=parent-area, accessed 27/07/08

⁷⁵ *Ibid*

⁷⁶ Sport England (2016) Local Sport Profile for Herefordshire

⁷⁷ Updated in November 2016.

⁷⁸ NHS Choices website, available at: <http://www.nhs.uk/service-search/Hospital/Herefordshire/Results/3/-2.746/52.102/7/10126?distance=25>, accessed 17/10/16

Education, skills and training

There are over 100 publicly funded primary, secondary and special schools in Herefordshire. Some 59% of pupils achieve 5 or more GCSEs at grades A*-C or equivalent, including English and mathematics. This is better than the West Midlands (55%) and England (56.6%) averages. 33.6% of Herefordshire residents have qualifications equivalent to NVQ level 4 and above. This is higher than the figure for the West Midlands as a whole (31.2%) but lower than the rate for England (37.1%)⁷⁹.

In 2020, it is hoped that a new university will open in Hereford: the New Model in Technology and Engineering (NMiTE). As the name suggests, this university will focus on training in engineering and technology, with a strong practical aspect which will help to address the shortage of graduate **engineers in the Marches and the UK. NMiTE's ambition is to construct a campus in Hereford city centre, with linked laboratories and workshops on the Enterprise Zone at Rotherwas. It will have 5,000 students by 2032**⁸⁰.

Crime

Herefordshire generally has a low crime rate area and crime per 1000 population continues to be below, or at the average, compared to crime levels in West Mercia⁸¹. There appears to be a correlation between crime and the most deprived areas of Herefordshire⁸².

The most common type of crime in Herefordshire in 2017-2018 was theft, followed by violence against the person⁸³.

Culture, leisure and recreation

Leisure activities contribute to the quality of life of residents, providing amenity and opportunities for enhancing intellectual, spiritual and physical wellbeing. Additionally, they represent a tourism asset and their provision can result in economic benefits to the area.

Herefordshire has a range of cultural and leisure opportunities, including Eastnor Castle and Hampton Court Castle, a number of houses and gardens to visit, as well as its characteristic market towns. Hereford city is home to the Hereford Museum and Art Gallery and The Old House, a well preserved example of a 17th century timber framed building.

Many visitors to Herefordshire come for its countryside, including the Wye Valley in the south of the county and the wealth of walking opportunities across the county. There is a network of public rights of way (PROW) across the countryside including promoted routes such as the Wye Valley Walk and the Three Rivers Ride. **The Offa's Dyke Path, a National Trail, passes through the county** near Kington. National Cycle Network (NCN) routes 44, 46, 426 and 423 are present within the county. The county also contains Queenswood Country Park near Bodenham. This includes an arboretum, semi-natural ancient woodland (a SSSI) and a Local Nature Reserve (LNR).

Herefordshire has a number of leisure centres managed by Halo, on behalf of Herefordshire Council. There are Halo leisure facilities in Bromyard, Kington, Ledbury, Leominster, Hereford, Ross-on-Wye and Wigmore⁸⁴.

Herefordshire Council has prepared a number of Playing Pitch Assessments, which review provision in various parts of the county. The Herefordshire Play Facilities Study⁸⁵ identified 145 sites in the county that have equipped provision for children and young people of which 48% are in the rural parishes and 52% are in urban areas.

⁷⁹ ONS (2011) Neighbourhood Statistics, Qualifications Gained

⁸⁰ <http://nmite.org.uk/about/>

⁸¹ Herefordshire Council (2018) Facts and Figures about Herefordshire, available at: <https://factsandfigures.herefordshire.gov.uk/about-a-topic/community-safety/overall-crime-levels.aspx>, accessed 30/7/18

⁸² Herefordshire Council (2018) Facts and Figures about Herefordshire, available at: <https://factsandfigures.herefordshire.gov.uk/about-a-topic/inequalities-and-deprivation/crime-deprivation.aspx>, accessed 30/7/18

⁸³ ONS (date not available) Neighbourhood Statistics, Key figures for crime and safety March 2018

⁸⁴ <https://www.herefordshire.gov.uk/leisure-and-culture/sports-and-sporting-venues/sports-facilities-information>

⁸⁵ Ruth Jackson, on behalf of Herefordshire Council (2012) Herefordshire Play Facilities Study

The Herefordshire Play Facilities Study⁸⁶ identified 145 sites in the county that have equipped provision for children and young people of which 48% are in the rural parishes and 52% are in urban areas.

Trend/key sustainability issue:

Herefordshire has a range of cultural and leisure opportunities, and many visitors to Herefordshire come for its countryside. Improve provision of recreational resources (be that to linear routes, open space, or recreational facilities).

Economic baseline information

Economy and employment

The latest labour market statistics⁸⁷ from January 2017 to December 2017 show that 94,500 people in Herefordshire were employed, accounting for 78.7% of the population, which is above the national average of 78%. The three main occupations in Herefordshire in the same period were professional occupations (16.6%), skilled trades and occupations (14.9%), and elementary occupations (12%). **The county's largest employment industries are wholesale and retail trade** (repair of motor vehicles and motorcycles) (19.2%), and human health and social work activities (16.4%). The percentage of people employed in the motor vehicle repair and the human health and social work industry is higher in Herefordshire than in the West Midlands (17.2% and 14.2% respectively) and the UK as a whole (15.3% and 13.3% respectively). Conversely, the number of people employed in professional, scientific and technical activities (5.5%) is below the regional (6.8%) and national (8.6%) averages.

The proportion of people who are unemployed is 3.1% of the population which is the lower than the regional average (5.2%) and the national average (4.4%).

Herefordshire has a lower proportion of people with no qualifications (8.2%) compared to the regional average (10.4%) but higher than national average (7.7%), and lower earnings per worker (£466.5) compared to the averages for the West Midlands (£517.4) and the UK as a whole (£552.7). The percentage of people claiming out-of-work benefits is also lower than both the regional and national averages. The level of job density calculated as the ratio of total jobs to population aged 16-64 in Herefordshire is 0.85%, which is higher than both the regional average (0.79%) and the national average (0.84%).

There are 9,055 businesses in Herefordshire, across 9,810 local units (sites or workplaces). The majority (89.9%) of businesses are micro, with up to 9 people in the business. Some 8.5% of businesses are small (10-49 people), 1.3% are medium (50-249 people) and 0.2% are large (250 people or more)⁸⁸.

Trend/key sustainability issue:

78.7% of the population of Herefordshire are employed which is just above the national average. Unemployment remains below regional and national averages. Gross weekly earnings remain lower than the regional and national averages.

Reliance on traditional employment sectors and service, whereas Herefordshire has aspirations to attract business in technology and knowledge intensive sectors.

Retaining skilled members of the population is an issue for the local economy, and there is a need to improve training levels to enhance the quality of the local workforce.

Retail and tourism

In 2015, 6.86 million people visited Herefordshire, 2.65m overnight visitors and 4.21m day visitors who between them contributed £442.81 m to the local economy. This supports about 6,688 full time equivalent jobs in the tourism industry. Tourism is strong in all the market towns,

⁸⁶ Ruth Jackson, on behalf of Herefordshire Council (2012) Herefordshire Play Facilities Study

⁸⁷ Nomis (2018) Labour Market Profile – Herefordshire. Available at: <https://www.nomisweb.co.uk/reports/lmp/la/1946157169/report.aspx>

⁸⁸ *Ibid*

which are characteristic of the region. These provide attractions as well as places to stay, eat and shop⁸⁹.

The main retail and cultural centre of Herefordshire is Hereford city, although market towns also play a key role. Hereford cathedral contains nationally important treasures, such as the Mappa Mundi and the Magna Carta, which draw many visitors each year. Other key attractions include Hereford Racecourse, Hereford Football Club, the New Cattle Market and Belmont Abbey. There are a number of festivals in Hereford throughout the year, which attract both locals and visitors. These include the Borderlines Film Festival and Herefordshire Art Week.

There are only around 25 hotels in Herefordshire, offering approximately 820 bedrooms (excluding guest houses / bed and breakfasts, etc.). The majority of these hotels are located around Hereford and Ross-on-Wye⁹⁰.

Transport and accessibility

The primary road network in Herefordshire generally radiates out from Hereford and Leominster. The A49 and A438 provide north-south and east-west links across the county respectively, via Hereford. The A44 provides an east-west link via Leominster. The A465 connects Hereford with Abergavenny and the A438 links Hereford with parts of Eastern Wales. The A40 changes into the M50 at Ross-on-Wye, offering residents access to the motorway network. Hereford is a hotspot for congestion in the county, particularly around the main river crossing of the A49 and the bridge **at St Martin's Street, which is controlled by traffic lights**⁹¹. As part of the Hereford Transport Package, the City Link Road was opened in December 2017 in Hereford which links Commercial Road and Edgar Street. Future transport and infrastructure improvements in Hereford include:

- the Southern Link Road in the South Wye area which will reduce congestion on Belmont Road and provide improved access to the Enterprise Zone at Rotherwas; and,
- the Hereford Bypass which will provide an alternative route for through traffic.

There are no commercial airports within Herefordshire, with the nearest airports being at Birmingham and Cardiff. There are four train stations within Herefordshire at Hereford, Leominster, Colwall and Ledbury. These are served by the following services:

- Arriva Trains Wales services from Milford Haven to Manchester Piccadilly.
- Arriva Trains Wales service from Cardiff to Holyhead.
- Great Western Railway service from Hereford to London Paddington.
- London Midland service from Hereford to Birmingham.

Two further stations lie just outside the county boundaries, near Leintwardine - Hopton Heath train station and Bucknell train station.

Bus operators for the main services in Herefordshire are given in **Table 21**. Generally, urban areas (Hereford and the market towns) have a more extensive range of bus services and these are more frequent than rural areas.

Table 21 Bus operators and main services in Herefordshire

Bus operators	Bus services
Arriva Midlands North	738/740
Aston Coaches	417, 675
Belfitt Mini Coach Hire	24B
D R M (Bromyard)	420, 469, 476, 672, 674
First (in Herefordshire)	71/71A/71B, 420, 426, 437, 446, 453, 454, 477,

⁸⁹ Herefordshire Council (2018) Hereford City Destination Management Plan [pdf] Available at: <https://www.brightspacefoundation.org.uk/sites/default/files/imce/City-DMP%20Version%201.0%2030th%20November%202017.pdf>

⁹⁰ Bridget Baker Consulting Ltd (2012) Marches LEP Board Research into Hotel demand across the Marches

⁹¹ Herefordshire Council (2016) Herefordshire Council Transport Plan 2016 - 2031

	492
H & H Coaches / James Bevan	35
Lugg Valley Primrose Travel/Lugg Valley Travel	490, 492, 494, 495/496, 501, 502, 802
Sargeants Bros. Coaches	41, 461/462
Stagecoach in South Wales	X4, 39/39A, 39B,
Stagecoach in Wye and Dean	32, 33, 34, 36, 44, 132
Yeomans Canyon Travel	39/39A, 412, 440, 447, 449

The majority of households in Herefordshire own either one (41.6%) or two (30.4%) cars or vans. Car ownership is generally higher in Herefordshire than in the West Midlands and England, as 11.7% households own three or more compared to 8.0% in the West Midlands and 7.4% in England. In the City of Hereford parish, more households have at least one car (46.4%) but 26.2% households have no car, compared to 16.4% county-wide. Car ownership is much higher in Holmer and Shelwick parish, with 78.0% households owning either one or two cars and only 6.0% not owning a car or van⁹².

The most common method of travel to work is driving a car or van, which is a trend seen across the country. Some 6.3% of people in Herefordshire work from home, which is greater than in the West Midlands (3.0%) and England (3.5%). Nearly 10% of people in Herefordshire walk to work, which is similar to England as a whole, although higher than for the West Midlands. In Hereford, slightly less people drive to work (37.4%) and slightly more travel to work on foot (15.3%). More people also cycle to work (5.2%) compared to 2.5% in Herefordshire as a whole. Conversely, more people drive to work in Holmer and Shelwick (52.6%) and fewer people travel to work on foot (5.5%)⁹³.

In 2017/18, 89 people were killed or seriously injured on Herefordshire's roads. The rate has remained, statistically speaking, unchanged since 2016, and is also one of the lowest rates in the West Midlands region for deaths or serious injuries resulting from road traffic collisions⁹⁴.

Trend/key sustainability issue:

There is high reliance on private cars and traffic congestion in Hereford, putting additional strain on existing infrastructure. Severance and poor air quality resulting from queueing traffic has adverse impacts on journey times, and journey time reliability.

⁹² ONS (2011) Neighbourhood Statistics, Car or Van Availability, Table QS416EW

⁹³ ONS (2011) Neighbourhood Statistics, Method of Travel to Work, Table QS701EW

⁹⁴ Herefordshire Council (2018) Facts and Figures about Herefordshire [online] Available at: <https://factsandfigures.herefordshire.gov.uk/about-a-topic/community-safety/road-casualties.aspx>

Appendix 4

Audit trail of site options

Mineral site options

Site No.	Name	Type	Reasonable alternative appraised in the SA	Reasons for selecting or rejecting the site for further assessment in the Herefordshire Minerals and Waste Local Plan	Selected as a potential site for allocation in the HMWLP
M01	Stetton Sugwas Quarry (Hereford Quarry)	Sand and gravel	No	Closed site, restored	No
M02	Lugg Bridge Quarry	Sand and gravel	No	Closed site, used for waste recycling and concrete plant	No
M03a	Upper Lyde Quarry	Sand and gravel	Yes	Inactive, due to re-open in 2018	Yes
M03b	Land adjacent Upper Lyde Quarry (east)	Sand and gravel	Yes	Proposed extension	Yes
M03c	Land adjacent Upper Lyde Quarry (west)	Sand and gravel	Yes	Not proposed in the HMWLP due to potential visual impacts	No
M03d	Land north east of Upper Lyde Quarry	Sand and gravel	Yes	Proposed extension	Yes
M04	Shobdon Quarry	Sand and gravel	Yes	Inactive, partially worked site Due to re-open during the plan period	Yes
M05a	Wellington Quarry	Sand and gravel	Yes	Active site	Yes
M05b	Land adjacent Wellington Quarry (west)	Sand and gravel	Yes	Proposed extension	Yes
M05c	Land adjacent Wellington Quarry (north west)	Sand and gravel	Yes	Proposed extension	Yes
M05d	Land adjacent Wellington Quarry (Dinmore Manor Estate)	Sand and gravel	Yes	Proposed extension	Yes
M05e	Land adjacent Wellington Quarry (east of A49)	Sand and gravel	Yes	Proposed extension	Yes
M05f	Land adjacent Wellington Quarry (west of A49)	Sand and gravel	Yes	Not proposed in the HMWLP as it is not a logical extension to the existing workings, situated on the opposite side of the A49 and beginning to wrap around Wellington Village.	No
M05g	Land east of Wellington Quarry	Sand and gravel	Yes	Proposed extension	Yes
M06	St Donat's Quarry	Sand and gravel	No	Closed site, restored	No
M07a	Leinthall Quarry	Crushed rock	Yes	Active site	Yes
M07b	Land west of Leinthall Quarry	Crushed rock	Yes	Proposed extension	Yes
M08	Loxter Ashbed Delve	Crushed rock	No	Closed site, restored	No

M09	Nash Scar Quarry	Crushed rock	No	Mothballed site, unlikely to be re-opened due to poor stability of the rock face	No
M10a	Perton Quarry	Crushed rock	Yes	Active site	Yes
M10b	Land north west of Perton Quarry	Crushed rock	Yes	Proposed extension	Yes
M11	Brakes Farm Delve	Building stone	No	Closed site, to be restored	No
M12	Callow Delve	Building stone	Yes	Active site - Time extension	Yes
M13	Black Hill Delve	Building stone	Yes	Active site - Size extension	Yes
M14	High House Delve	Building stone	No	Closed site, unsuccessful delve	No
M15	Hunters Post Delve	Building stone	No	Closed site, restored	No
M16	Llandraw Delve	Building stone	Yes	Active site - Size extension	Yes
M17	Pennsylvani Delves	Building stone	Yes	Active site - Time extension	Yes
M18	Sunnybank Delve	Building stone	Yes	Active site - Time extension	Yes
M19	Tybubach Delve	Building stone	No	Closed site, to be restored	No
M20	Westonhill Wood Delve	Building stone	Yes	Active site - Size extension	Yes
M21	Howle Hill Quarry	Coal	No	Closed site, restored	No
M22	Land at South Hide Farm and South End Farm, Mathon	Sand and gravel	Yes	Not proposed in the HMWLP as the proposed areas are close to former extraction area which is now restored. Not appropriate to be worked due to AONB designation.	No
Area of Search	Area A	Crushed rock	Yes	Identified as a preferred area of search due to the presence of crushed rock reserves. There are no current, permitted workings in these areas and there have been no submissions from the industry to work them.	Yes
Area of Search	Area D	Crushed rock	Yes		Yes
Area of Search	Area B	Sand and gravel	Yes		Yes
Area of Search	Area C	Sand and gravel	Yes	Identified as a preferred area of search due to the presence of sand and gravel reserves. There are no current, permitted workings in these areas and there have been no submissions from the industry to work them.	Yes

Waste site options

Site No.	Name	Type	Reasons for selecting or rejecting the site for further assessment in the Herefordshire Minerals and Waste Local Plan	Selected as a potential site for allocation in the HMWLP
Waste Sites				
W01	Eastside Recycling Facility	Hazardous and non-hazardous WTS	Existing waste facility located on a strategic employment site. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W02	Quickskip (Hereford) Transfer Station	Non-hazardous WTS	Existing waste facility located on a strategic employment site. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W03	Wye Valley Skips	Non-hazardous WTS	Located outside of the spatial strategy preferred areas.	No
W04	Marlbrook Farm	Non-hazardous WTS	Located outside of the spatial strategy preferred areas.	No
W05	Leominster HWS and HWRC	Municipal non-hazardous WTS and HWRC	Currently used for LACW and is an appropriate location for the management of waste. Also located within the spatial strategy preferred areas.	Allocate
W06	Rotherwas HWS and HWRC	Municipal non-hazardous WTS, MRF and HWRC	Existing waste facility located on a strategic employment site. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W07	Ledbury HWRC	HWRC	Currently used for LACW and is an appropriate location for the management of waste. Also located within the spatial strategy preferred areas.	Allocate
W08	Ross-on-Wye HWRC	HWRC	Existing waste facility on an industrial estate. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be	No

Site No.	Name	Type	Reasons for selecting or rejecting the site for further assessment in the Herefordshire Minerals and Waste Local Plan	Selected as a potential site for allocation in the HMWLP
			inappropriate to allocate discrete sites within the estates.	
W09	Bromyard HWRC	HWRC	Existing waste facility on an industrial estate. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W10	Kington HWRC	HWRC	Currently used for LACW and is an appropriate location for the management of waste. Also located within the spatial strategy preferred areas.	Allocate
W11	H C D Ltd	Material Recycling Facility	Located on industrial estate/outside of the spatial strategy preferred areas.	No
W12	Land adjacent to Unit 3, Balfour Beatty	Physical Treatment	Existing waste facility located on a strategic employment site. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W13	Former Lugg Bridge Quarry	Physical Treatment	Active site and has the potential for significant intensification.	Allocate
W14	Kingspan Insulation Ltd	Physical Treatment	Not appropriate for waste uses beyond existing/not preferred location for waste uses	No
W15	Quickskip Chapel Road	Physical Treatment	Existing waste facility located on a strategic employment site. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W16	Quickskip Fir Tree Lane	Physical Treatment	Existing waste facility located on a strategic employment site. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W17	Eastside Recycling Facility	Car Breaker	Existing waste facility located on a strategic	No

Site No.	Name	Type	Reasons for selecting or rejecting the site for further assessment in the Herefordshire Minerals and Waste Local Plan	Selected as a potential site for allocation in the HMWLP
			employment site. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	
W18	J & R Recovery	Physical Treatment	Site cleared and located outside of the spatial strategy preferred areas.	No
W19	City Spares MRS	Car Breaker	Site cleared but is within the spatial strategy preferred areas.	Allocate
W20	P & T Moore Vehicle Dismantlers	Car Breaker	Located outside of the spatial strategy preferred areas.	No
W21	Streamhall Garage	Car Breaker	Existing waste facility on an industrial estate. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W22	R Smith Metals	Car Breaker	Existing waste facility on an industrial estate. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W23	Former EMR Facility	Car Breaker	Existing waste facility on an industrial estate. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W24	Cobhall Cottage	Car Breaker	Located outside of the spatial strategy preferred areas.	No
W25	Yaidon Farm	Biological Treatment	Located outside of the spatial strategy preferred areas.	No
W26	Much Fawley Farm	Biological Treatment	Not appropriate for waste uses beyond existing, associated with agricultural holding	No
W27	Court Farm	Biological Treatment	Not appropriate for waste uses beyond existing, associated with agricultural holding	No
W28	Eign Waste Treatment Centre	Biological	Not appropriate for waste uses beyond existing	No

Site No.	Name	Type	Reasons for selecting or rejecting the site for further assessment in the Herefordshire Minerals and Waste Local Plan	Selected as a potential site for allocation in the HMWLP
		Treatment		
W29	Gelpack Excelsior	Non-hazardous Waste Transfer/Treatment	Existing waste facility located on a strategic employment site. This type of location experiences a reasonably high level of plot turnover, recognising this level of potential change over the lifetime of the HMWLP, it would be inappropriate to allocate discrete sites within the estates.	No
W30	County Hospital	Clinical Waste Transfer	Not appropriate for waste uses beyond existing, associated with healthcare	No
W31	Two Hoots Farm	Anaerobic Digestion (farm waste)	Not appropriate for waste uses beyond existing, associated with agricultural holding	No
W32	Bowley Court	Anaerobic Digestion (farm waste)	Not appropriate for waste uses beyond existing, associated with agricultural holding	No
W33	Penllan Farm	Anaerobic Digestion (farm waste)	Not appropriate for waste uses beyond existing, associated with agricultural holding	No
W34	Herefordshire Biogas	Anaerobic Digestion (farm waste)	Not appropriate for waste uses beyond existing, associated with agricultural holding	No
W35	The Biogas Facility	Anaerobic Digestion (farm waste)	Not appropriate for waste uses beyond existing, associated with agricultural holding	No
W36	Trevase Farm	Anaerobic Digestion (farm waste)	Not appropriate for waste uses beyond existing, associated with agricultural holding	No
W37	Eardisley Park Farm	Anaerobic Digestion (farm waste)	Not appropriate for waste uses beyond existing, associated with agricultural holding	No

Site No.	Name	Type	Reasons for selecting or rejecting the site for further assessment in the Herefordshire Minerals and Waste Local Plan	Selected as a potential site for allocation in the HMWLP
W38	The Leen Digester	Anaerobic Digestion (farm waste)	Not appropriate for waste uses beyond existing, associated with agricultural holding	No
W39	Land at Lower Vern	Deposit of waste to land (recovery)	Located outside of the spatial strategy preferred areas.	No
W40	MF Bennion (Potatoes) Ltd	Open windrow, in-vessel composting, anaerobic digestion	Located outside of the spatial strategy preferred areas.	No
W41	Disused railway cutting near Woods End, Stanford Bishop	Inert waste	Located outside of the spatial strategy preferred areas.	No
Mineral sites				
W42	Stretton Sugwas Quarry	Sand and Gravel	Closed site, restored	No
W43	Upper Lyde Quarry (M03)	Sand and Gravel	Active site and proposed areas	Identified as appropriate location for inert waste disposal
W44	Shobdon Quarry (M04)	Sand and Gravel	Inactive, partially worked site	Identified as appropriate location for inert waste disposal
W45	Wellington Quarry (M05)	Sand and Gravel	Active site and proposed areas	Identified as appropriate location for inert waste disposal
W46	Leinthall Quarry (M07)	Limestone	Active site and proposed area. However, the site is to be restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No

Site No.	Name	Type	Reasons for selecting or rejecting the site for further assessment in the Herefordshire Minerals and Waste Local Plan	Selected as a potential site for allocation in the HMWLP
W47	Nash Scar Quarry (M09)	Limestone	Mothballed. However, the site is to be restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No
W48	Perton Quarry (M10)	Limestone	Active site and proposed area. However, the site is to be restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No
W49	Callow Delve (M12)	Sandstone	Active site. However, the site is to be restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No
W50	Black Hill Delve (M13)	Sandstone	Active site. However, the site is to be restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No
W51	High House Delve (M14)	Sandstone	Closed site, unsuccessful delve	No
W52	Hunters Post Delve (M15)	Sandstone	Closed site, restored	No
W53	Llandraw Delve (M16)	Sandstone	Active site. However, the site is to be restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No
W54	Pennsylvania Delve (M17)	Sandstone	Active site. However, the site is to be restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No
W55	Sunnybank Delve (M18)	Sandstone	Active site. However, the site is to be restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No
W56	Tyubach Delve (M19)	Sandstone	Being restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No
W57	Westonhill Wood Delves (M20)	Sandstone	Active site. However, the site is to be restored with on-site overburden and soils and therefore is not appropriate to promote for waste management development.	No

Site No.	Name	Type	Reasons for selecting or rejecting the site for further assessment in the Herefordshire Minerals and Waste Local Plan	Selected as a potential site for allocation in the HMWLP
Strategic Employment Sites				
W58	Rotherwas Industrial Estate	Strategic Employment Site	Good potential for co-location and strategic facility	Promoted in policy but not allocated as waste site in the HMWLP
W59	Westfields Trading Estate	Strategic Employment Site	Good potential for co-location, likely small scale facility	Promoted in policy but not allocated as waste site in the HMWLP
W60	Three Elms Trading Estate	Strategic Employment Site	Good potential for co-location, likely small scale facility	Promoted in policy but not allocated as waste site in the HMWLP
W61	Holmer Road, Hereford	Strategic Employment Site	Good potential, although unlikely to be immediate	Promoted in policy but not allocated as waste site in the HMWLP
W62	Leominster Enterprise Park	Strategic Employment Site	Good potential for co-location and strategic facility	Promoted in policy but not allocated as waste site in the HMWLP
W63	Southern Avenue, Leominster	Strategic Employment Site	Good potential for co-location and strategic facility	Promoted in policy but not allocated as waste site in the HMWLP
W64	Land between Little Marcle Road and Ross Road, Ledbury	Strategic Employment Site	Good potential for co-location and strategic facility	Promoted in policy but not allocated as waste site in the HMWLP

Site No.	Name	Type	Reasons for selecting or rejecting the site for further assessment in the Herefordshire Minerals and Waste Local Plan	Selected as a potential site for allocation in the HMWLP
W65	Model Farm, Ross-on-Wye	Strategic Employment Site	Good potential for co-location and strategic facility	Promoted in policy but not allocated as waste site in the HMWLP
W66	Moreton Business Park, Moretonon- Lugg	Strategic Employment Site	Good potential for co-location and strategic facility	Promoted in policy but not allocated as waste site in the HMWLP

Appendix 5

Assumptions used in the SA of mineral and waste site options

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
Employment										
SA Objective 1: Support, maintain or enhance the provision of high quality, local or easily accessible employment opportunities, suited to the changing needs of the local workforce										
Explanation of potential effects										
<p>All site options could have a direct and indirect effect on maintaining or increasing employment levels during site preparation, operation and restoration. Minor positive effects are expected for all site options (with the exception of the strategic employment sites) as these beneficial effects are unlikely to result in significant employment opportunities and are most likely to be experienced in the short and medium term, rather than in the long-term.</p> <p>The Spatial Context and Sites Report states that strategic employment areas are appropriate for larger scale/strategic waste management facilities. Therefore, uncertain significant positive effects are identified for sites greater than 20ha, i.e. sites W58, W59, W63 and W66, while uncertain minor positive effects are identified for the remaining strategic employment sites as these are likely to generate fewer employment opportunities. Effects are uncertain for the strategic employment sites as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.</p>										
ALL SITE OPTIONS	N/A	Strategic Employment Sites W58, W59, W63 and W66	All other site options	Strategic Employment Sites W60, W61, W62, W64 and W65	N/A	N/A	N/A	N/A	N/A	N/A
Creation of employment opportunities										
SA Objective 2: Maintain or enhance conditions that enable a sustainable economy and continued investment										
Explanation of potential effects										
<p>The development of mineral and waste sites will have a direct positive effect on this SA objective as they encourage long-term investment in Herefordshire's minerals and waste sectors. The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society. The development of new waste management infrastructure will assist in the delivery of the circular economy. As for SA Objective 1, uncertain significant positive effects are identified for sites greater than 20ha, i.e. sites W58, W59, W63 and W66, as these sites may significantly enhance investment in the waste industry. Uncertain minor positive effects are identified for the remaining strategic employment sites. Effects are uncertain for the strategic employment sites as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.</p>										
ALL SITE OPTIONS	N/A	Strategic Employment Sites W58, W59, W63 and W66	All other site options	Strategic Employment Sites W60, W61, W62, W64 and W65	N/A	N/A	N/A	N/A	N/A	N/A
Healthy and Prosperous Communities										
SA Objective 3: Protect and improve the health of the people of Herefordshire, reduce disparities in health geographically and demographically										
Explanation of potential effects										
<p>Sensitive receptors include residential areas, schools, hospitals, faith centres (e.g. churches, mosques, temples) and areas identified or allocated for residential development in the Core Strategy and Hereford Area Plan DPD.</p> <p>Mineral and waste sites could have adverse effects on the amenity of local residents and communities as minerals and waste developments would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of minerals and waste around and from the site. Noise and vibration from blasting/drilling in relation to mineral sites or recycling of waste can cause concern to residents and communities near to mineral extraction and waste management sites. The extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site, the type of waste recycled at the site, the scale of the operation and the type of activities undertaken within the site.</p> <p>Dust from blasting/drilling and other sources within mineral sites (e.g. haul roads, crushers, stockpiles, etc.) may cause concern to residents and communities near extraction sites. Evidence included in the National Planning Practice Guidance for Minerals states that residential properties and other sensitive uses may be affected by dust within 1km of site activity, and that additional measures to monitor and control PM10 might be necessary. However, former Annex I of Minerals Policy Statement 2 also stated that concerns about dust are most likely to be experienced near to dust sources, generally within 100m depending on site characteristics and in the absence of appropriate mitigation. Therefore, these distances (100m and 1km) have been used within the assumptions for this SA objective. Uncertain significant negative effects are expected for site options within 100m of a sensitive receptor and also for sites which are within 1km of a settlement and another existing mineral or waste site as their development could have a cumulative negative effect on the amenity of the community.</p> <p>Minor negative effects are likely where a mineral or waste site contains or intersects areas of open space, public rights of way (PROW) or cycle paths as development of the sites would either mean removing part of a recreational asset, or removing or temporarily closing land which has potential for recreation/access to the countryside.</p> <p>The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.</p>										
Mitigation/enhancement										
<p>Separation distances/buffer zones may be appropriate in circumstances where it is clear that a certain distance is required between the boundary of a minerals extraction or waste site and residential properties or other sensitive receptors.</p> <p>Operations at mineral and waste sites should remain within statutory noise and dust limits.</p> <p>The design of and restoration of mineral and waste sites provides opportunities for sites to deliver green infrastructure, enhanced public rights of way and improved access to recreation. However, the standard and extent of restoration would be very dependent on the exact nature and proposed design of the mineral/waste site, which would not be known until the planning application stage.</p>										

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
Planning obligations may be sought to secure the provision, and where appropriate maintenance, of community benefits (e.g. shared space, community facilities and other local services).										
ALL SITE OPTIONS (excluding Strategic Employment Sites) Contains or intersects open space, public rights of way (PROW), or cycle paths	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Site options intersect with an area of open space, PROW or cycle path	N/A	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Proximity to sensitive receptors Cumulative effect of mineral and waste sites on health and amenity	N/A	N/A	N/A	N/A	Site options over 100m (>100m) from sensitive receptors (i.e. residential areas, schools, hospitals, faith centres [e.g. churches, mosques, temples])	N/A	N/A	N/A	Site options within 100m (<100m) of sensitive receptors (i.e. residential areas, schools, hospitals, faith centres [e.g. churches, mosques, temples]) OR Site options within 1km from a settlement <u>AND</u> another existing mineral or waste site	N/A
STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A
SA Objective 4: Reduce poverty and, promote equality and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county										
Explanation of potential effects										
All site options (excluding Strategic Employment Site W63) are expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, uncertain minor positive effects are identified for these sites.										
While sites W58, W59, W63 and W66 may be appropriate locations for large scale/strategic waste management facilities (>20ha) which may create employment opportunities thereby reducing employment deprivation, the positive effects are significant for site W63 only as this site would provide employment opportunities in one of the most deprived areas of Herefordshire. Minor rather than significant positive effects are identified for sites W58, W59 and W66 as these are not within areas of high deprivation but would still generate employment opportunities. Minor positive effects are also identified for the remaining Strategic Employment Sites (W60, W61, W62, W64 and W65) as these would generate a small number of jobs which may help to reduce employment deprivation. The effects are uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.										
ALL SITE OPTIONS Access to employment	N/A	Strategic Employment Site W63	N/A	All other site options	N/A	N/A	N/A	N/A	N/A	N/A
Transport and Access										
SA Objective 5: Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the county										
Explanation of potential effects										
Herefordshire is a very rural county and the only modes for transporting minerals and waste are by road and rail. The railhead at Moreton-on-Lugg is used to transport minerals from Wellington Quarry to the south-east of England, predominantly London. Mineral sites that are within 1km of the Moreton-on-Lugg railhead are likely to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel.										
Due to the limited opportunities for rail transport of materials, there will be a reliance on road transport. A large percentage of the vehicle movements associated with minerals and waste development are heavy goods vehicles, which are likely to be significant in volume. Larger scale development, including new or extended mineral workings and waste management facilities will operate over a relatively long period of time, such that significant transport effects might be felt for many years. There is likely to be negative impacts on the transport network on a short to medium term basis, however, these effects will be temporary in nature while mineral sites are worked and waste management facilities are operational. Therefore, it is assumed that all mineral and waste sites have the potential to generate traffic in Herefordshire, however, without detailed information about how the sites will be worked (which										

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
--------------------------	----------------------------------	---	---------------------------	--------------------------------------	-----------------------	----------------------------------	--------------------------------------	---------------------------	---	----------------------------------

would be available at the planning application stage), the extent of the negative impact will be assessed using the size of the site as an indication as it is assumed that larger sites are likely to generate more movements of heavy goods vehicles.

The further vehicles transporting minerals and waste have to travel along local roads (i.e. not on the primary road network) the higher the potential for traffic and localised pollution as vehicles are likely to travel more slowly on local roads thereby increasing the potential for traffic, and slower moving traffic may result in more pollutant deposition along those routes than vehicles moving at a consistent speed. Therefore, sites that are not within close proximity to the primary road network will have a significant negative effect on road traffic.

Minor positive effects may be experienced for the strategic employment sites as these may provide opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce transport distances of waste.

The proximity of sites to public transport links will affect the extent to which employees are able to make use of non-car based modes of transport to commute to and from mineral and waste sites.

Encouraging the use of low emission vehicles for the transportation of waste and minerals is more likely to be influenced by policy rather than the location of mineral and waste sites.

Mitigation/enhancement

Phasing of sites could minimise adverse effects on the road network from the preparation, operation and restoration of sites. Where necessary, routing agreements and/or travel plans may be sought to control and alleviate the effects of traffic movements, for example in order to avoid environmentally sensitive places or local conditions of congestion on the highway network. Examples of high level mitigation could include changing the form of a junction on the access route from a propriety junction to a roundabout or traffic signals. Examples of medium level mitigation could include road widening. Examples of low level mitigation could include localised road widening to create passing bays.

MINERAL SITE OPTIONS Proximity to railhead	N/A	N/A	N/A	Mineral site options within 1km (<1km) of the Moreton-on-Lugg railhead	N/A	N/A	N/A	N/A	N/A	N/A
ALL SITE OPTIONS Co-location of waste sites	N/A	N/A	N/A	Strategic Employment Sites	N/A	N/A	N/A	N/A	N/A	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Allocation size Proximity to local roads	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Site options which are small (<20ha)	N/A	Site options which are large (>20ha) OR Site options which are within 250m (<250m) of a local road only
ALL SITE OPTIONS (excluding Strategic Employment Sites) Proximity to sustainable transport links	Site options within 800m (<=800m) of three or more different sustainable transport links (bus stops, railway stations and cycle paths)	N/A	Site options within 800m (<=800m) of one or two sustainable transport links (bus stops, railway stations or cycle paths)	N/A	N/A	N/A	N/A	N/A	N/A	Site options further than 800m (>=800m) from any sustainable transport link (bus stops, railway stations or cycle paths)

Built & Historic Environment

SA Objective 6: Value, protect and enhance the county's historic environment and cultural heritage

Explanation of potential effects

Historic England defines a heritage asset as "a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing)". In the absence of detailed site assessment work to draw from, as an indication of potential effects on heritage assets from development of any of the potential sites for mineral and waste use, the following assumptions will be used to give an indication of potential effects. Uncertain minor negative effects are expected for mineral site options as adverse effects on buried archaeology in limestone, sandstone or sand and gravel deposits may be possible but are unlikely. All effects are uncertain as it will depend on the design, scale and layout of the development which is unknown at this stage. Where sites are likely to experience a combination of uncertain minor negative and uncertain significant negative effects, the overall score will be presented as an uncertain significant negative effect.

The development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

Mitigation/enhancement

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
Site restoration and after-use may enable improved access to historic sites, enhance the setting of historic features (such as water meadows), reinstate historic features such as hedgerows, or provide on-site interpretation of the site and its history in association with publicly accessible areas. Appropriate archaeological evaluation and watching briefs should assist construction on all sites, allowing for preservation <i>in situ</i> if possible, followed by preservation by record.										
STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Hereford Area of Archaeological Importance	N/A	N/A	N/A	N/A	N/A	N/A	Site options adjacent to the Hereford Area of Archaeological Importance	N/A	Site options within the Hereford Area of Archaeological Importance	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Conservation Areas	N/A	N/A	N/A	N/A	N/A	N/A	Site options adjacent to a Conservation Area that contain existing historic buildings or that contain good quality open space	N/A	Site options within a Conservation Area that contain extant historic buildings OR Site options within a Conservation Area that contain an area of open space	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Scheduled Monuments	N/A	N/A	N/A	N/A	N/A	N/A	Site options that are adjacent to a Scheduled Monument of buried archaeology as the setting is potentially less important to its significance	N/A	Site options that intersect a Scheduled Monument as any changes are prima facie unacceptable OR Site options that are adjacent to a Scheduled Monument of upstanding remains as the setting is important to its significance	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Registered Historic Park and Gardens	N/A	N/A	N/A	N/A	N/A	N/A	Site options adjacent to a Registered Historic Park and Garden	N/A	Site options within a Registered Historic Park and Garden	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Listed Buildings	N/A	N/A	N/A	N/A	N/A	N/A	Site options adjacent to a large Listed Building (e.g. church with tower)	N/A	Site options that contain a Listed Building (mixed effect as the building may be re-used sustainably (+?/--?))	N/A

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
ALL SITE OPTIONS (excluding Strategic Employment Sites) Non-designated assets	N/A	N/A	N/A	N/A		N/A	Site options adjacent to historic buildings OR Mineral site options	N/A	N/A	N/A
SA Objective 7: Value, protect and enhance the character and built quality of settlements and neighbourhoods										
Explanation of potential effects										
Sites within close proximity (100m) of a settlement may have an adverse effect on the character and built quality of the area. Therefore, significant negative effects are expected; however, effects are uncertain depending on the design of the development and the contribution the land makes to the local distinctiveness and setting of an area.										
The Areas of Search identified cover large areas and contain a number of settlements. It is uncertain where mineral extraction proposals will come forward within the Area of Search, however, should they be within 100m of settlements, there is the potential for significant negative effects on the character and the built quality of neighbourhoods.										
The development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.										
The effects of developing new mineral and waste sites on this SA objective will depend largely on the exact nature and proposed design of the mineral/waste site, which would not be known until the planning application stage.										
Mitigation/enhancement										
Mineral sites are required to be restored to a high environmental standard resulting in land of equal value being returned following the working of a site. The restoration of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and will therefore depend on the restoration proposals outlined at planning application stage.										
STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites)	N/A	N/A	N/A	N/A	Site options which are not within 100m (>100m) of a settlement	N/A	N/A	N/A	Site options which are within 100m (<100m) of a settlement	N/A
Resource Consumption and Climate Change										
SA Objective 8: Move treatment of waste up the waste hierarchy										
Explanation of potential effects										
Significant positive effects are identified for waste site options W05, W07 and W10 as they are operational household waste recycling centres which process waste that would otherwise be landfilled. Effects are uncertain as these sites may be used for different wastes or different technologies than are currently present.										
W13 is an operational site, recovering construction, demolition and excavation waste which, if expanded, would have a significant positive effect on the recovery of waste.										
Mixed effects (uncertain significant positive/uncertain minor negative) are expected for W19 as the site may provide energy recovery facilities, either biological (such as anaerobic digestion) which would have a significant positive effect or combustion with energy recovery (such as incineration or gasification) which would have a minor negative effect on driving waste up the waste hierarchy.										
As stated in the HMWLP secondary and recycled materials have an important role to play in the overall supply of aggregates. The efficient use of materials such as recycled and secondary aggregate, as alternatives to primary minerals, can help to conserve natural resources and promote the reuse of waste materials. Construction, Demolition and Excavation (CD&E) waste recovery facilities may be located on industrial estates and strategic employment sites but they are often more appropriately located at mineral workings, where the same processing equipment may be shared. Uncertain minor positive effects may be experienced for strategic employment sites as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.										
Minor negative effects may be experienced for a number of waste site options (W43, W44, and W45) and mineral site options at Upper Lyde Quarry (M03), Shobdon Quarry (M04) and Wellington Quarry (M05) as these sites are identified as appropriate locations for the disposal of inert waste, which is unlikely to promote the reuse of waste material. Uncertain minor negative effects are identified for the remaining mineral site options as these sites may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.										
Opportunities for incorporating sustainable waste management practices at each site are uncertain at this stage.										
WASTE SITE OPTIONS	N/A	Waste site options W05, W07, W10, W13 and W19	N/A	N/A	N/A	N/A	Waste site option W19	Waste site options W43, W44 and W45	N/A	N/A
MINERAL SITE	N/A	N/A	N/A	N/A	N/A	N/A	All other mineral	Mineral site options at	N/A	N/A

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
OPTIONS							site options	Upper Lyde Quarry (M03), Shobdon Quarry (M04) and Wellington Quarry (M05)		
STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A	N/A	N/A

SA Objective 9: Promote sustainable use of mineral resources

Explanation of potential effects

NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development. The allocation of former quarries is also not expected to sterilise mineral resources as the minerals would already have been extracted.

The development of waste facilities within a Preferred Area of Search or a Minerals Safeguarding Area as identified in the Draft HMWLP may sterilise mineral resources and restrict the availability of resources in the county. Uncertain minor negative effects are expected for waste sites within a Mineral Safeguarding Area or a Preferred Area of Search.

The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

The efficient use of materials such as recycled aggregate, as alternatives to primary minerals, can help to conserve mineral resources. Promoting the efficient use of mineral resources in new-build and refurbishment developments is more likely to be influenced by policy rather than the location of mineral sites.

Mitigation/enhancement

Extraction of minerals prior to proposed non-mineral development may be undertaken where it would not significantly affect the timing and viability of the non-minerals development. Applications for non-mineral developments that fall within a Minerals Safeguarding Area may be required to submit an assessment of the effect of the proposed development on the mineral resource beneath or adjacent to the site of the development. The assessment should provide the appropriate level of information to demonstrate that the relevant mineral interests have been adequately considered and that known mineral resources will be appropriately protected from being sterilised or unduly restricted by other forms of development occurring on or close to the resource.

MINERAL & WASTE SITE OPTIONS Safeguarding mineral sites	N/A	N/A	All mineral site options Waste site options W13, W43, W44 and W45	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASTE SITE OPTIONS Intersection with mineral resources	N/A	N/A	N/A	N/A	All other waste site options	N/A	Site options intersect with Mineral Safeguarding Area or a Preferred Area of Search	N/A	N/A	N/A
STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A

SA Objective 10: Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem

Explanation of potential effects

As explained under SA Objective 5, there are limited opportunities for transport of materials using sustainable modes and therefore there will be a reliance on road transport which will increase the emission of greenhouse gases. Therefore, it is assumed that all site options have the potential to generate traffic in Herefordshire, however, without detailed information about how the sites will be worked, designed or operated (which would be available at the planning application stage), the extent of the negative impact will be assessed using the size of the site as an indication as it is assumed that larger sites are likely to generate more movements of heavy goods vehicles resulting in the production of higher levels of carbon dioxide and other greenhouse gas emissions.

The further vehicles transporting minerals and waste have to travel along local roads (i.e. not on the primary road network) the higher the potential for traffic and localised pollution as vehicles are likely to travel more slowly on local roads thereby increasing the potential for traffic, and slower moving traffic may result in more pollutant deposition along those routes than vehicles moving at a consistent speed. Therefore, sites that are not within close proximity to the primary road network will have a significant negative effect on road traffic.

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
--------------------------	----------------------------------	---	---------------------------	--------------------------------------	-----------------------	----------------------------------	--------------------------------------	---------------------------	---	----------------------------------

Mineral sites that are within 1km of the Moreton-on-Lugg railhead are likely to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel thereby reducing the emission of greenhouse gases.

Minor positive effects may be experienced for the strategic employment sites as these may provide opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.

The proximity of sites to public transport links will affect the extent to which employees are able to make use of non-car based modes of transport to commute to and from mineral and waste sites thereby reducing transport emissions.

While new mineral and waste developments will inevitably lead to an increase in greenhouse gas emissions through emissions from waste and mineral transportation and management activities, the location of individual sites will not have an effect on levels of energy consumption and the potential for renewable energy use. These factors would be influenced more by the specific design and construction methods used, and whether renewable energy infrastructure is to be incorporated in the development, which will not be known until planning applications come forward.

Mitigation/enhancement

Applications for waste and mineral operations are subject to the Environment Agency's permitting regime which requires the mineral and waste industries to obtain permits setting out thresholds for impacts on ambient air quality from mineral and waste operations. Therefore, it is assumed that any mineral and waste operations that might occur in future on a site allocated in the HMWLP will be undertaken in line with an Environmental Agency permit, which should help to minimise potential effects on air quality.

Air quality assessments may be required if adverse effects are identified to ensure negative impacts on air quality are mitigated to an acceptable level.

MINERAL SITE OPTIONS Proximity to railhead	N/A	N/A	N/A	Mineral site options within 1km (<1km) of the Moreton-on-Lugg railhead	N/A	N/A	N/A	N/A	N/A	N/A
ALL SITE OPTIONS Co-location of waste sites	N/A	N/A	N/A	Strategic Employment Sites	N/A	N/A	N/A	N/A	N/A	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Allocation size Proximity to local roads	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Site options which are small (<20ha)	N/A	Site options which are large (>20ha) OR Site options which are within 250m (<250m) of a local road only
ALL SITE OPTIONS (excluding Strategic Employment Sites) Proximity to sustainable transport links	Site options within 800m (<=800m) of three or more sustainable transport links (bus stops, railway stations or cycle paths)	N/A	Site options within 800m (<=800m) of one or two sustainable transport links (bus stops, railway stations or cycle paths)	N/A	N/A	N/A	N/A	N/A	N/A	Site options further than 800m (>=800m) from any sustainable transport link (bus stops, railway stations or cycle paths)

SA Objective 11: Promote effective restoration and appropriate after use of sites

Explanation of potential effects

NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. Uncertain significant positive effects are identified for proposed mineral sites as NPPF requires restoration to result in land of equal value being returned following the working of a site.

The restoration of mineral sites also offers the potential to deliver biodiversity gains in the long term, however, many sites are restored to wetland and grassland habitats which can attract large numbers of species that may in certain circumstances pose a hazard to aircraft. There are two Aerodrome Safeguarding Zones that intersect Herefordshire – at Shobdon Airfield and Gloucestershire Airport. Where a mineral site is within an Aerodrome Safeguarding Zone there is potential for adverse impacts on aircraft safety from bird-strike however the effect is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.

The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. However, it should be noted that there are no operational or proposed landfill sites in Herefordshire. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years, therefore uncertain minor positive effects are identified.

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
Mitigation/enhancement										
The restoration of sites is increasingly adopting innovative practices which have the potential to have positive effects on landscape character, biodiversity, amenity, agriculture and recreation. However, the standard and extent of restoration would be very dependent on the exact nature and proposed design of the mineral/waste site, which would not be known until the planning application stage.										
MINERAL SITE OPTIONS Presence within an Aerodrome Safeguarding Zone	N/A	N/A	N/A	N/A	N/A	N/A	Mineral site options within an Aerodrome Safeguarding Zone	N/A	N/A	N/A
ALL SITE OPTIONS Restoration of sites	N/A	All mineral site options	N/A	All waste site options including at Strategic Employment Sites	N/A	N/A	N/A	N/A	N/A	N/A
Natural Environment										
SA Objective 12: Value, maintain, restore and expand county biodiversity and geodiversity										
Explanation of potential effects										
<p>The operation of mineral and waste sites can have a number of different impacts on habitats and species either within the boundary of the site or in close proximity to the site. Habitat loss, due to destruction, fragmentation or degradation of habitats, can occur within the boundary of a mineral extraction site or a waste facility and is likely to impact on species populations and species movement. Species can be affected through disturbance such as from noise, light, vibration and human presence. Disturbance effects are generally more likely within or in close proximity to the mineral or waste site. Light pollution would only affect nocturnal species (e.g. bats and some birds), and would be more likely during the winter months when shorter day lengths mean extraction and waste sites may still be operating when it is dark (e.g. late afternoon). Noise and vibration from certain mineral extraction and waste treatment activities also has the potential to disturb species. Depending on the type of waste facility, there is potential for vermin, gulls and corvids (crow family) to be attracted to the site which may prey upon species, particularly the eggs and young of nesting birds.</p> <p>All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.</p> <p>The potential impact on biodiversity and geodiversity present on each site, or adjacent to the potential mineral and waste sites, cannot be determined with certainty at this strategic level of assessment. This would be determined once more specific proposals are developed and submitted as part of a planning application. Therefore, as an <u>indication</u> of the likelihood of significant negative effects, proximity of designated biodiversity and geodiversity conservation sites to potential mineral and waste sites has been used. The presence of a site within a Green Infrastructure Corridor or a Green Infrastructure Enhancement Zone has also been used as a proxy for potential effects on biodiversity as mineral and waste sites within a GI corridor may fragment ecological areas and green spaces thereby impacting on species movement. Uncertainty will be attached to all effects on this SA objective as effects will very much depend on the design and operation of extraction and waste treatment activities.</p> <p>The development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.</p> <p>As more detailed information from the Habitats Regulations Assessment becomes available in relation to potential effects on international nature conservation sites, this will also be drawn upon.</p>										
Mitigation/enhancement										
Where mineral and waste sites are located within close proximity to designated sites, mitigation measures such as including a buffer zone between the conservation site and the mineral/waste site may be required. Ecological and/or hydrological assessments and ongoing monitoring of the impacts on designated sites may also be required to ensure negative impacts are mitigated to an acceptable level.										
The design of and restoration of mineral and waste sites provides opportunities for sites to contribute towards national and local biodiversity targets during the restoration stage of the sites, supporting ecological networks surrounding the sites and incorporating the use of native species and habitats to encourage biodiversity within the site. These effects would be very dependent on the exact nature and proposed design of the mineral or waste site, which would not be known until the planning application stage.										
The extraction of minerals also creates new geological exposures which may be of educational interest.										
MINERAL SITE OPTIONS	N/A	N/A	N/A	N/A	N/A	N/A	All mineral site options	N/A	N/A	N/A
MINERAL SITE OPTIONS Presence within a national site of geological interest (SSSI) or Local Geological Site	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mineral site options that contain a national site of geological interest (SSSI) or Local Geological Site	N/A
STRATEGIC	N/A	N/A	N/A	N/A	N/A	All Strategic Employment	N/A	N/A	N/A	N/A

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
EMPLOYMENT SITES						Sites				
ALL SITE OPTIONS (excluding Strategic Employment Sites) Distance to (impacts on): International, national or local designated wildlife and geodiversity sites International (SAC, SPA, Ramsar) National (SSSI, NNR, <i>Ancient Woodland</i> , <i>Priority Habitat Inventory</i>) Local (LNR, SWS, SINC)	N/A	N/A	N/A	N/A	N/A	Site options more than 1km (>=1km) from any internationally or nationally designated biodiversity or geodiversity site OR Site options that do not contain a locally designated site, an area of ancient woodland or an area listed on the Priority Habitat Inventory	Site options between 250m and 1km (>=250m<=1km) of one or more internationally or nationally designated biodiversity or geodiversity site OR Site options that contain a locally designated site, an area of ancient woodland or an area listed on the Priority Habitat Inventory	N/A	Site options that contain or are within 250m (<=250m) of an internationally or nationally designated biodiversity or geodiversity site	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Presence within Green Infrastructure Corridors or Green Infrastructure Enhancement Zones	N/A	N/A	N/A	N/A	N/A	Site options not within a Green Infrastructure Corridor OR a Green Infrastructure Enhancement Zone	Site options within a Green Infrastructure Corridor OR a Green Infrastructure Enhancement Zone	N/A	N/A	N/A
SA Objective 13: Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces										
Explanation of potential effects As there are no National Parks within or immediately adjacent to Herefordshire, the location of potential mineral and waste sites is not expected to affect this landscape designation. The Wye Valley AONB and the Malvern Hills AONB lie partially within Herefordshire and the Shropshire Hills AONB lies almost adjacent to the north-western part of Herefordshire. Therefore, sites within or in close proximity (250m) to these nationally designated landscapes could have significant adverse effects on the character and special qualities of these areas. Mineral and waste sites that contain open space or parks/gardens are likely to have an adverse effect on this SA objective as their loss will impact on local landscape character. The Urban Fringe Sensitivity Analysis ⁹⁵ characterises the areas surrounding Hereford and each of the five market towns. It identifies areas of low, medium-low, medium, high-medium, and high sensitivity, depending on how vulnerable key landscape characteristics are to change. Sensitive and high quality landscapes may be affected by the development of mineral and waste sites. The Green Infrastructure Strategy ⁹⁶ identifies new and existing green infrastructure corridors which enhance the character and distinctiveness of an area. Site options within these corridors could contribute to fragmentation of these assets thereby reducing their positive contribution to character and local distinctiveness. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the landscape beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.										
Mitigation/enhancement Areas of low sensitivity and poor landscape character could be enhanced through the restoration of mineral and waste sites. The restoration of sites may also positively contribute to the enhancement of GI corridors in the county. However, this will not be determined until the planning application stage, when specific proposals about the type of extraction and waste treatment activities will be available and judgements on factors such as the prominence of the sites' in the landscape, the level of screening, and the character of the surrounding landscape can be made.										

⁹⁵ Herefordshire Council and NHS Herefordshire (2010) Urban Fringe Sensitivity Analysis: Hereford and the Market Towns

⁹⁶ Herefordshire Council and NHS Herefordshire (2010) Green Infrastructure Strategy Herefordshire – Local Development Framework [pdf] Available at: <https://www.herefordshire.gov.uk/greeninfrastructure>

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Distance to (impacts on): AONBs, open space or parks/gardens	N/A	N/A	N/A	N/A	N/A	N/A	Site options that contain an area of open space or parks/gardens	N/A	Site options within, or within 250m, of an AONB	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Classification of areas in the Urban Fringe Sensitivity Analysis	N/A	N/A	N/A	N/A	N/A	All other site options	Site options within an area classified as 'high-medium' or 'medium' (Urban Fringe Sensitivity Analysis)	N/A	Site options within an area classified as 'high sensitivity' (Urban Fringe Sensitivity Analysis)	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Presence within Green Infrastructure Corridors or Green Infrastructure Enhancement Zones	N/A	N/A	N/A	N/A	Site options not within a Green Infrastructure Corridor OR a Green Infrastructure Enhancement Zone	N/A	Site options within a Green Infrastructure Corridor OR a Green Infrastructure Enhancement Zone	N/A	N/A	N/A

SA Objective 14: Value, protect and enhance the quality of watercourses and maximise the efficient use of water

Explanation of potential effects

The extent to which minerals and waste sites will affect ground and surface water depends on the type of waste facility, the type of mineral worked, site design and characteristics, and geological conditions. Waste sites can potentially pose a pollution risk to water resources from residual liquids or leachate. Mineral extraction can also pose a risk to the water environment by decreasing (for example as a result of extraction) or increasing water quantity (for example due to impeded water flow or restoration) ground or surface water levels.

There are a number of Source Protection Zones (SPZs) in Herefordshire. Sites which are located within a Source Protection Zone present a potential risk of contamination to local groundwater sources. SPZ1 provides protection for the head works around the abstraction borehole. SPZ2 is defined as the outer protection zone while SPZ3 is classed as the catchment protection zone.

Mineral and waste site options within close proximity to vulnerable surface water bodies or internationally/nationally designated waterbodies may have an adverse effect on water quality depending on the nature of the development and/or proximity/hydrological connectivity to the site.

The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

It will not be possible to assess water use and efficiency at this stage in the planning process, as it will depend on the proposal (type, design, method of working, etc.) which would be assessed at the planning application stage.

As more detailed information from the Habitats Regulations Assessment becomes available in relation to potential effects on international nature conservation sites, this will also be drawn upon.

Mitigation/enhancement

Applications for waste and mineral operations are subject to the Environment Agency's permitting regime which requires the mineral and waste industries to obtain permits setting out thresholds for impacts on water supply and quality from mineral and waste operations. Therefore, it is assumed that any mineral and waste operations that might occur in future on a site allocated in the HMWLP will be undertaken in line with an Environmental Agency permit, which should help to minimise potential effects on water supply and quality.

Hydrological/hydrogeological assessments and ongoing water quality monitoring may be required if adverse effects are identified to ensure negative impacts on the water environment are mitigated to an acceptable level.

STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A
ALL SITE OPTIONS	N/A	N/A	N/A	N/A	All other site	N/A	Site options	N/A	Site options	N/A

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
(excluding Strategic Employment Sites) Site options located within a Source Protection Zone (SPZ)					options		intersect Source Protection Zone 2 or 3		intersect Source Protection Zone 1	
ALL SITE OPTIONS (excluding Strategic Employment Sites) Distance to vulnerable water bodies	N/A	N/A	N/A	N/A	All other site options	N/A	Site options within 250m of a waterbody classified as being in 'poor' or 'moderate' ecological/chemical status	N/A	Site options within 250m of a waterbody classified as being in 'bad' ecological/chemical status	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Distance to (impacts on): SSSI or SAC waterbody	N/A	N/A	N/A	N/A	All other site options	N/A	Site options between 250m and 1km (>=250m<=1km) of one or more SSSI or SAC waterbody	N/A	Site options that contain or are within 250m (<=250m) of a SSSI or SAC waterbody	N/A

SA Objective 15: Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment

Explanation of potential effects

Herefordshire Council prepared a Strategic Flood Risk Assessment (SFRA) in 2009 and is currently in the process of preparing a revised SFRA. Due to the passage of time since the previous SFRA was prepared, it was decided not to use this dataset but the Environment Agency Flood Zones dataset which is more up-to-date. Therefore, the sub-categories of Flood Zone 3 (3a and 3b) are not considered in the assessment criteria. Where a site is within Flood Zone 3, an uncertain significant negative effect has been identified as the site may be within either Flood Zone 3a or 3b.

National Planning Practice **Guidance identifies landfills and sites used for waste management facilities for hazardous waste as a 'more vulnerable use'**, which is suitable in areas of Flood Zone 1 and 2 but would require an exception test in Flood Zone 3a (high probability of flooding), and is unsuitable in Flood Zone 3b (the functional flood plain). Waste treatment (except landfill and hazardous waste facilities) and minerals working and processing (except for sand and gravel working) are classed as 'less vulnerable' and are therefore considered suitable in Flood Zones 1, 2 and 3a but unsuitable in Flood Zone 3b (the functional flood plain). Sand and gravel working is considered a 'water compatible' use and is therefore suitable in all flood zones. NPPG also states that mineral workings should not increase flood risk elsewhere and need to be designed, worked and restored accordingly.

The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

Mitigation/enhancement

Site-specific Flood Risk Assessments will be required to be produced by developers/applicants at the planning application stage to demonstrate how flood risk from all sources of flooding to the development itself and flood risk to other developments will be managed now and taking climate change into account.

The voids created by mineral extraction could potentially be positive for flood risk in the sense that they could provide extra capacity for floodwaters in the medium term or permanently through the restoration of sites i.e. by creating new wetland habitat that provides flood storage, or lower level agricultural land. The effects are uncertain as it will depend on the restoration plan for the site.

STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A
ALL SITE OPTIONS (except for sand & gravel working and Strategic Employment Sites) Within flood zones	N/A	N/A	N/A	N/A	Site options in Flood Zone 1 and 2	N/A	N/A	N/A	All mineral and waste site options (except for sand and gravel working) within Flood Zone 3	N/A
SAND AND GRAVEL SITE OPTIONS Within flood zones	N/A	N/A	N/A	N/A	Sand and gravel site options in any Flood Zone category	N/A	N/A	N/A	N/A	N/A

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
--------------------------	----------------------------------	---	---------------------------	--------------------------------------	-----------------------	----------------------------------	--------------------------------------	---------------------------	---	----------------------------------

SA Objective 16: Minimise noise, light and air pollution

Explanation of potential effects

There are two AQMAs in Herefordshire – the Hereford AQMA and the Bargates Leominster AQMA. All new development in AQMAs (regardless of the use specified) has the potential to aggravate local air quality in terms of a resultant increased number of journeys during the construction, extraction and operational phases thereby compounding existing air quality problems. Significant negative effects are therefore expected for sites that are within an AQMA or likely to generate traffic that uses an AQMA route as its primary access.

The effects of transporting materials along local roads (i.e. not on the primary road network) and the use of sustainable modes of transport have already been assessed under SA objectives 5 and 10 above.

Sensitive receptors include schools, hospitals, faith centres (e.g. churches, mosques, temples) and areas identified or allocated for residential development in the Core Strategy and Hereford Area Plan DPD. Mineral and waste sites would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of minerals and waste around and from the site. The extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site, the type of waste managed at the site, the scale of the operation and the type of activities undertaken within the site. As highlighted in Objective 3, dust from blasting/drilling may also impact on air quality. Uncertain significant negative effects are expected for site options within 100m of a sensitive receptor. The potential for cumulative effects from air and noise pollution where sites are within 1km of a settlement and another existing mineral and waste site is covered already under SA objective 3 above.

The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

Mitigation/enhancement

Applications for waste and mineral operations are subject to the Environment Agency's permitting regime which requires the mineral and waste industries to obtain permits setting out thresholds for impacts on ambient air quality from mineral and waste operations. Therefore, it is assumed that any mineral and waste operations that might occur in future on a site allocated in the HMWLP will be undertaken in line with an Environmental Agency permit, which should help to minimise potential effects on air quality.

Air quality assessments may be required if adverse effects are identified to ensure negative impacts on air quality are mitigated to an acceptable level.

Noise and dust assessments may be required to ensure negative impacts are mitigated to an acceptable level. The effects would only be for the duration of the extraction/restoration works. Mitigation measures would reduce any short/medium term impacts with no long term impacts expected.

STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Site options that are within, or directly connected via road, to one of the Air Quality Management Areas (AQMA) in the county	N/A	N/A	N/A	N/A	Not within an AQMA or likely to generate traffic that uses an AQMA route as its primary access	N/A	N/A	N/A	N/A	Within an AQMA or likely to generate traffic that uses an AQMA route as its primary access
ALL SITE OPTIONS (excluding Strategic Employment Sites) Proximity to sensitive receptors	N/A	N/A	N/A	N/A	Site options over 100m (>100m) from sensitive receptors (i.e. residential areas, schools, hospitals, faith centres [e.g. churches, mosques, temples])	N/A	N/A	N/A	Site options within 100m (<100m) of sensitive receptors (i.e. residential areas, schools, hospitals, faith centres [e.g. churches, mosques, temples])	N/A

SA Objective 17: Value, protect and enhance soil quality and resources

Explanation of potential effects

Soil quality may be lost where it is temporarily stripped (e.g. for site compounds & haul routes), however, top soil can be stored for re-use during the restoration of sites. These effects are uncertain and are dependent on a site's restoration plan.

Remediation of contaminated soils may be possible prior to construction resulting in a net improvement to soil and water quality, however, the extent of contaminated soils in Herefordshire is unknown at this stage. Therefore, uncertain effects are also expected for this element of the SA objective.

Site assessment criteria	Significant positive effect (++)	Uncertain significant positive effect (++?)	Minor positive effect (+)	Uncertain minor positive effect (+?)	Negligible effect (0)	Uncertain negligible effect (0?)	Uncertain minor negative effect (-?)	Minor negative effect (-)	Uncertain significant negative effect (--?)	Significant negative effect (--)
<p>The majority of Herefordshire consists of Grade 2 and Grade 3 agricultural land. There are scattered areas of Grade 1 land and some areas of lower quality, Grades 4 and 5, particularly in the west of the country. The Pre-1988 Agricultural Land Classification identifies areas comprising Grade 1, 2 and 3a best and most versatile agricultural land in Hereford, Lower Bullingham and Homer & Shelwick. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).</p> <p>Mineral extraction can only take place where the mineral occurs which may occur on greenfield sites. However, waste sites can be directed to previously developed land in preference to greenfield sites. Development on brownfield land represents more efficient use of land in comparison to the development of greenfield sites. Effects are uncertain depending on the design of the development, the previous use of the site and its restoration.</p> <p>The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.</p> <p>A threshold of 20ha is used in accordance with Schedule 4 of the Town and County Planning (Development Management Procedure Order) 2015 – Natural England must be consulted with respect to applications for the development of 20ha or more of grade 1, 2 or 3a agricultural land which is not for agricultural purposes.</p> <p>Mitigation/enhancement</p> <p>There is likely to be a temporary impact on soils as they are removed to allow mineral extraction to take place. However, mitigation and good restoration will ensure that there is no long lasting impact on soils. Mineral sites are required to be restored to a high environmental standard resulting in land of equal value being returned following the working of a site, including high quality agricultural land.</p> <p>The restoration of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and will therefore depend on the restoration proposals outlined at planning application stage.</p>										
STRATEGIC EMPLOYMENT SITES	N/A	N/A	N/A	N/A	N/A	All Strategic Employment Sites	N/A	N/A	N/A	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Agricultural grade of land	N/A	N/A	N/A	N/A	Site options that are not on Grade 1, 2 or 3 agricultural land	N/A	Site options that are entirely or mainly (>50%) on Grade 3 or 3b agricultural land OR Site options that partly comprise (<50%) Grade 1, 2 or 3a agricultural land	N/A	Site options that are entirely or mainly (>50%) on Grade 1, 2 or 3a agricultural land	N/A
ALL SITE OPTIONS (excluding Strategic Employment Sites) Greenfield or brownfield land	N/A	N/A	N/A	Site options of any size entirely or mainly (>50%) on brownfield land	N/A	N/A	Site options which are small (<20ha) and are entirely or mainly (>50%) on greenfield land	N/A	Site options which are large (>20ha) and are entirely or mainly (>50%) on greenfield land	N/A

Appendix 6

Detailed SA matrices for the mineral site options

M03a Upper Lyde Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	This site is not within 100m of a school, hospital, faith centre or settlement. A negligible effect is identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-	This site is within 800m of five bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic given that there are no main roads within 250m.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.

SA Objective	SA Score	Justification
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located at Upper Lyde Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development. This site is currently inactive and due to re-open in 2018.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/--	This site is within 800m of five bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic and associated greenhouse gas emissions given that there are no main roads within 250m.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. However, all mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. The extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.

SA Objective	SA Score	Justification
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of residential areas, schools, hospitals or faith centres. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	--?	An uncertain significant negative effect is identified as the site is mainly (>50%) on Grade 2 and 3a agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M03b Land adjacent Upper Lyde Quarry (east)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of	0	This site is not within 100m of a school, hospital, faith centre or settlement. A negligible effect is

SA Objective	SA Score	Justification
the people of Herefordshire, and reduce disparities in health geographically and demographically.		identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/--	This site is within 800m of three bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic given that there are no main roads within 250m.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located at Upper Lyde Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate	+/--	This site is within 800m of three bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a significant negative effect

SA Objective	SA Score	Justification
change as well as its contribution to the problem.		which acknowledges the potential adverse effect that the minerals site could have on road traffic and associated greenhouse gas emissions given that there are no main roads within 250m.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. However, all mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. The extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of residential areas, schools, hospitals or faith centres. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil	--?	An uncertain significant negative effect is identified as the site is situated entirely on Grade 2

SA Objective	SA Score	Justification
quality and resources.		agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M03c Land adjacent Upper Lyde Quarry (west)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	This site is not within 100m of a school, hospital, faith centre or settlement. A negligible effect is identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-	This site is within 800m of five bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a minor negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic.

SA Objective	SA Score	Justification
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located at Upper Lyde Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-	This site is within 800m of five bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a minor negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic emissions.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. However, all mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the

SA Objective	SA Score	Justification
		geodiversity of the site. The extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of residential areas, schools, hospitals or faith centres. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	--?	An uncertain significant negative effect is identified as the site is mainly (>50%) on Grade 2 and 3a agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M03d Land north east of Upper Lyde Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for

SA Objective	SA Score	Justification
waste sectors.		this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	This site is not within 100m of a school, hospital, faith centre or settlement. A negligible effect is identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/--	This site is within 800m of two bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic given that the site is more than 250m from a main road.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located at Upper Lyde Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.

SA Objective	SA Score	Justification
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/--	This site is within 800m of two bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic and emissions given that the site is more than 250m from a main road.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. However, all mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. The extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is identified for this SA objective.

SA Objective	SA Score	Justification
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of residential areas, schools, hospitals or faith centres. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	--?	An uncertain significant negative effect is identified as the site is situated entirely on Grade 3a agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M04 Shobdon Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	This site is not within 100m of a school, hospital, faith centre or settlement. A negligible effect is identified for this SA objective.

SA Objective	SA Score	Justification
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/--	This site is within 800m of two bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic given that the site is more than 250m from a main road.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located at Shobdon Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development. This site is a currently inactive partially worked site which is due to re-open in the plan period.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/--	This site is within 800m of two bus stops which would enable employees to easily access the site via sustainable transport. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic and emissions given that the site is more than 250m from a main road.

SA Objective	SA Score	Justification
11. Promote effective restoration and appropriate after use of sites.	++?/-?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience to a high environmental standard, and that restoration should result in land of equal value being returned following the working of a site. The restoration of mineral sites also offers the potential to deliver biodiversity gains in the long term, however, many sites are restored to wetland and grassland habitats which can attract large numbers of species that may in certain circumstances pose a hazard to aircraft. This site is located within Shobdon Aerodrome Safeguarding Zone and therefore this site has potential for adverse impacts on aircraft safety from bird-strike however the effect is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage. Overall, a mixed effect (uncertain significant positive/uncertain minor negative) is expected for this SA objective.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site as it contains deciduous woodland as listed on the Priority Habitat Inventory. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone or within 1km of a SSSI or SAC waterbody, but is within 250m of Pinsley Brook which has a 'poor' ecological status . A minor negative effect is given although this is uncertain and dependent on the nature of the development and/or proximity/hydrological connectivity to Pinsley Brook.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air	0	This site is not within an AQMA or within 100m of residential areas, schools, hospitals or faith

SA Objective	SA Score	Justification
pollution.		centres. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	--?	An uncertain significant negative effect is identified as the site is mainly (>50%) on Grade 2 and 3a agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M05a Wellington Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The operation of this site will maintain levels of employment in the mineral industry. A minor positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	Mineral extraction at this operational site will result in continued investment in the minerals industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	This site is not within 100m of a school, hospital or faith centre, but is within 100m of the settlement of Moreton on Lugg. An uncertain significant negative effect is therefore identified as the continued operation of the site may result in a continuation of effects on health and amenity, although these are likely to have been addressed through conditions relating to planning permission.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable	+?/--?	This site is within 800m of eight bus stops which would enable employees to easily access the site via sustainable transport. The Moreton-on-Lugg railhead is partly within the site and is likely

SA Objective	SA Score	Justification
modes of transport and efficient movement patterns in the County.		to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic given its size (152.5ha) and its potential to generate more traffic. Given the site is continuing to operate, this adverse effect is likely to have been addressed through conditions relating to the existing planning permission, and so the significant negative effect is uncertain.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is adjacent to the Grade II listed Almshouses about 300 yards south of Bridge House and the Grade II listed mile post about 200 yards south of Almshouses. These features may be adversely affected by adjacent mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. Therefore, the proposed minerals extraction at this operational site may result in a continuation of effects on the historic environment, although these effects are likely to have already been addressed through conditions relating to the existing planning permission. As such, an uncertain minor adverse effect is expected.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	A significant negative effect is identified as the site is within close proximity (100m) of a settlement and therefore could adversely affect the character of local neighbourhoods. Given the site is continuing to operate, this adverse effect is likely to have been addressed through conditions relating to the existing planning permission, and so the significant negative effect is uncertain.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located adjacent to Wellington Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development. This site is a currently inactive partially worked site which is due to re-open in the plan period.
10. Reduce Herefordshire's	+?/--?	This site is within 800m of eight bus stops which would enable employees to easily access the

SA Objective	SA Score	Justification
vulnerability to the impacts of climate change as well as its contribution to the problem.		site via sustainable transport. The Moreton-on-Lugg railhead is partly within the site and is likely to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic emissions given its size (152.5ha). Given the site is continuing to operate, this adverse effect is likely to have been addressed through conditions relating to the existing planning permission, and so the significant negative effect is uncertain.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	An uncertain significant negative effect is identified for the site as it is located within approximately 165m from the River Wye SAC and the River Lugg SSSI. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone but is approximately 270m west of the River Lugg SSSI waterbody. A minor negative effect is given although this is uncertain and dependent on the nature of the development and/or proximity/hydrological connectivity to the River Lugg. Effects on water quality are also likely to have been addressed through the conditions on the existing planning permission.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is unlikely to have an adverse effect on flooding. A negligible effect is identified for this SA objective.

SA Objective	SA Score	Justification
16. Minimise noise, light, and air pollution.	--?	This site is not within an AQMA but is within 100m of the settlement of Moreton on Lugg. An uncertain significant negative effect is therefore identified for this SA objective. The uncertainty of this effect is also justified further given that the effects on noise, light and air pollution are likely to have been addressed through conditions on the current planning permission.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as this site partly comprises (<50%) Grade 2 agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before). Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission.

M05b Land adjacent Wellington Quarry (west)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	This site is not within 100m of a school, hospital or faith centre, but is within 100m of the settlement of Wellington. Potential effects from noise and transportation may also be exacerbated due to the operation of the existing and adjacent Wellington Quarry. A significant negative effect is therefore given although this is uncertain as the extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site, the scale of the operation and the type of activities undertaken within the site.

SA Objective	SA Score	Justification
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?/-	This site is within 800m of five bus stops which would enable employees to easily access the site via sustainable transport. The Moreton-on-Lugg railhead is also within 1km of the site and is likely to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel. This positive effect is mixed with a minor negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is adjacent to the Grade II listed Bridge House, the Grade II listed Almshouses about 300 yards south of Bridge House, and Wellington Conservation Area, which contains historic buildings and open space. These features may be adversely affected by adjacent mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	A significant negative effect is identified as the site is within close proximity (100m) of Wellington and therefore could adversely affect the character of local neighbourhoods of this settlement. However, effects are uncertain depending on the design of the development and the contribution the land makes to the local distinctiveness and setting of an area.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located adjacent to Wellington Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.

SA Objective	SA Score	Justification
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/-	This site is within 800m of five bus stops which would enable employees to easily access the site via sustainable transport. The Moreton-on-Lugg railhead is also within 1km of the site and is likely to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel. This positive effect is mixed with a minor negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic and emissions.
11. Promote effective restoration and appropriate after use of sites.	+ +?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified for the site as it is located approximately 750m from the River Wye SAC and the River Lugg SSSI. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone but is within 1km of the River Lugg SSSI waterbody. A minor negative effect is given although this is uncertain and dependent on the nature of the development and/or proximity/hydrological connectivity to the River Lugg.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.

SA Objective	SA Score	Justification
16. Minimise noise, light, and air pollution.	--?	This site is not within an AQMA but is within 100m of the settlement of Wellington. An uncertain significant negative effect is therefore identified for this SA objective. The potential for cumulative effects from air and noise pollution where sites are within 1km of a settlement and another existing mineral and waste site is covered already under SA objective 3 above.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as this site partly comprises (<50%) Grade 1 and 2 agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M05c Land adjacent Wellington Quarry (north-west)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	This site is not within 100m of a school, hospital or faith centre, but is within 100m of the settlement of Wellington. Potential effects from noise and transportation may also be exacerbated due to the operation of the existing and adjacent Wellington Quarry. A significant negative effect is therefore given although this is uncertain as the extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site and the scale of the operation and the type of activities undertaken within the site.

SA Objective	SA Score	Justification
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?/--	This site is within 800m of three bus stops which would enable employees to easily access the site via sustainable transport. The Moreton-on-Lugg railhead is also within 1km of the site and is likely to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic given its size (20.8ha).
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is adjacent to the Grade II listed Bridge House, the Grade II listed Almshouses about 300 yards south of Bridge House, and Wellington Conservation Area, which contains historic buildings and open space. These features may be adversely affected by adjacent mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	A significant negative effect is identified as the site is within close proximity (100m) of Wellington and therefore could adversely affect the character of local neighbourhoods of this settlement. However, effects are uncertain depending on the design of the development and the contribution the land makes to the local distinctiveness and setting of an area.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located adjacent to Wellington Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.

SA Objective	SA Score	Justification
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/--	This site is within 800m of three bus stops which would enable employees to easily access the site via sustainable transport. The Moreton-on-Lugg railhead is also within 1km of the site and is likely to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic emissions given its size (20.8ha).
11. Promote effective restoration and appropriate after use of sites.	+ +?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	An uncertain significant negative effect is identified for the site as it is located within approximately 230m from the River Wye SAC and the River Lugg SSSI. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone but is within 1km of the River Lugg SSSI waterbody. A minor negative effect is given although this is uncertain and dependent on the nature of the development and/or proximity/hydrological connectivity to the River Lugg.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.

SA Objective	SA Score	Justification
16. Minimise noise, light, and air pollution.	--?	This site is not within an AQMA but is within 100m of the settlement of Wellington. An uncertain significant negative effect is therefore identified for this SA objective. The potential for cumulative effects from air and noise pollution where sites are within 1km of a settlement and another existing mineral and waste site is covered already under SA objective 3 above.
17. Value, protect and enhance soil quality and resources.	--?	An uncertain significant negative effect is identified as the site is 20.8ha in size and is entirely on greenfield area as well as being comprised of mainly (>50%) Grade 1 and 3a agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M05d Land adjacent Wellington Quarry (Dinmore Manor Estate)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	This site is not itself within 100m of a school, hospital or settlement, but is adjacent to the existing Wellington Quarry and within 1km of Wellington. Potential effects from noise and transportation may therefore be exacerbated due to the operation of the existing and adjacent Wellington Quarry. A significant negative effect is therefore given although this is uncertain as the extent of noise, vibration and light pollution will depend on the type of mineral extracted

SA Objective	SA Score	Justification
		from the site and the scale of the operation and the type of activities undertaken within the site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?/--	This site is within 800m of one bus stop which would enable employees to access the site via sustainable transport. The Moreton-on-Lugg railhead is also within 1km of the site and is likely to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic given its size (25ha).
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located adjacent to Wellington Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate	+?/--	This site is within 800m of one bus stop which would enable employees to access the site via sustainable transport. The Moreton-on-Lugg railhead is also within 1km of the site and is likely

SA Objective	SA Score	Justification
change as well as its contribution to the problem.		to have an uncertain minor positive effect as minerals may be transported using a more sustainable mode of transport than road-based travel. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic emissions given its size (25ha).
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	An uncertain significant negative effect is identified for the site as it is located within approximately 50m from the River Wye SAC and the River Lugg SSSI. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	--?	This site is not within a Source Protection Zone but is adjacent to the River Lugg SSSI waterbody. A significant negative effect is given although this is uncertain and dependent on the nature of the development and/or proximity/hydrological connectivity to the River Lugg.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement. A negligible effect is identified for this SA objective.

SA Objective	SA Score	Justification
17. Value, protect and enhance soil quality and resources.	--?	An uncertain significant negative effect is identified as the site is 25ha in size and is entirely on greenfield area. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M05e Land adjacent Wellington Quarry (east of A49)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	This site is not itself within 100m of a school, hospital or settlement, but near to the existing Wellington Quarry and within 1km of Wellington. Potential effects from noise and transportation may therefore be exacerbated due to the operation of the existing and adjacent Wellington Quarry. A significant negative effect is therefore given although this is uncertain as the extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site and the scale of the operation and the type of activities undertaken within the site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and	+/-	This site is within 800m of one bus stop which would enable employees to access the site via

SA Objective	SA Score	Justification
pollution, and promote sustainable modes of transport and efficient movement patterns in the County.		sustainable transport. This positive effect is mixed with a minor negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is adjacent to the Grade II listed mile post about 1000 yards north-north-east of Bridge House. This feature may be adversely affected by adjacent mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located adjacent to Wellington Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-	This site is within 800m of one bus stop which would enable employees to access the site via sustainable transport. This positive effect is mixed with a minor negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic emissions.
11. Promote effective restoration and appropriate after use of sites.	+++	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.

SA Objective	SA Score	Justification
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified for the site as it is located approximately 330m from the River Wye SAC and the River Lugg SSSI. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone but is within 1km of the River Lugg SSSI waterbody. A minor negative effect is given although this is uncertain and dependent on the nature of the development and/or proximity/hydrological connectivity to the River Lugg.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	--?	An uncertain significant negative effect is identified as the site is mainly (>50%) on Grade 1 agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M05f Land adjacent Wellington Quarry (west of A49)

SA Objective	SA Score	Justification
--------------	----------	---------------

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	This site is not itself within 100m of a school, hospital or settlement, but near to the existing Wellington Quarry and within 1km of Wellington. Potential effects from noise and transportation may therefore be exacerbated due to the operation of the existing and adjacent Wellington Quarry. A significant negative effect is therefore given although this is uncertain as the extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site and the scale of the operation and the type of activities undertaken within the site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-	This site is within 800m of three bus stops which would enable employees to access the site via sustainable transport. This positive effect is mixed with a minor negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic.
6. Value, protect and enhance the county's historic environment and cultural heritage .	-?	The site is adjacent to the Wellington Conservation Area, which contains historic buildings and open space. These features may be adversely affected by adjacent mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of	--?	A significant negative effect is identified as the site is within close proximity (100m) of Wellington and therefore could adversely affect the character of local neighbourhoods of this settlement. However, effects are uncertain depending on the design of the development and the

SA Objective	SA Score	Justification
settlements and neighbourhoods.		contribution the land makes to the local distinctiveness and setting of an area.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located adjacent to Wellington Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-	This site is within 800m of three bus stops which would enable employees to access the site via sustainable transport. This positive effect is mixed with a minor negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic emissions.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified for the site as it is located approximately 580m from the River Wye SAC and the River Lugg SSSI. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.

SA Objective	SA Score	Justification
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone but is within 1km of the River Lugg SSSI waterbody. A minor negative effect is given although this is uncertain and dependent on the nature of the development and/or proximity/hydrological connectivity to the River Lugg.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	--?	An uncertain significant negative effect is identified as the site is mainly (>50%) on Grade 1 agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M05g Land east of Wellington Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of	--?	This site is not itself within 100m of a school, hospital or settlement, but adjacent to the existing

SA Objective	SA Score	Justification
the people of Herefordshire, and reduce disparities in health geographically and demographically.		Wellington Quarry and within 1km of Marden. Potential effects from noise and transportation may therefore be exacerbated due to the operation of the existing and adjacent Wellington Quarry. A significant negative effect is therefore given although this is uncertain as the extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site and the scale of the operation and the type of activities undertaken within the site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/--	This site is within 800m of six bus stops which would enable employees to access the site via sustainable transport. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic given its size (30.5ha).
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is adjacent to the Grade I listed Church of St Mary, as well as the Grade II listed Bennett Monument about 50 yards south-east of Church of St Mary, Harris Monument about 20 yards east-north-east of Church of St Mary, headstone about 15 yards east-south-east of Church of St Mary, base of churchyard cross about 35 yards east-south-east of Church of St Mary and the Daniel Monument about 25 yards east of Church of St Mary. These features may be adversely affected by adjacent mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	A significant negative effect is identified as the site is within close proximity (100m) of Marden and therefore could adversely affect the character of local neighbourhoods of this settlement. However, effects are uncertain depending on the design of the development and the contribution the land makes to the local distinctiveness and setting of an area.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located adjacent to Wellington Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.

SA Objective	SA Score	Justification
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/--	This site is within 800m of six bus stops which would enable employees to access the site via sustainable transport. This positive effect is mixed with a significant negative effect which acknowledges the potential adverse effect that the minerals site could have on road traffic emissions given its size (30.5ha).
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	A significant negative effect is identified for the site as it is located within approximately 50m of the River Wye SAC and the River Lugg SSSI. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	--?	This site is not within a Source Protection Zone but is directly adjacent to the River Lugg SSSI waterbody. A significant negative effect is given although this is uncertain and dependent on the nature of the development and/or proximity/hydrological connectivity to the River Lugg.
15. Reduce the risk of flooding and the resulting detriment to public well-	0	This site is proposed for sand and gravel working which is considered a 'water compatible' use

SA Objective	SA Score	Justification
being, the economy and the environment.		and is therefore suitable in all flood zones. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	--?	An uncertain significant negative effect is identified as the site is 30.5ha in size and is entirely on greenfield area. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M07a Leinthall Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The operation of this site will maintain levels of employment in the mineral industry. A minor positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	Mineral extraction at this operational site will result in continued investment in the minerals industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	This site is within 100m of Leinthall Earls but not a hospital, church or school. An uncertain significant negative effect is therefore identified as the continued operation of the site may result in a continuation of effects on health and amenity, although these are likely to have been addressed through conditions relating to planning permission.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.

SA Objective	SA Score	Justification
and the rest of the county.		
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	--?	This site is not within 800m of sustainable transport modes. Therefore employees are likely to use private cars which would have implications for road traffic and congestion. This negative effect is enhanced due to the potential adverse effect that the minerals site could have on road traffic given its size (32.3ha). The continued operation of this site may result in a continuation of effects on traffic and congestion, although these are likely to be addressed through conditions relating to planning permission.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is adjacent to the Grade II* listed Church of St Andrew, the Grade II listed Court Farmhouse and the Grade II listed Gatley Park. These features may be adversely affected by adjacent mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. Therefore, the proposed minerals extraction at this operational site may result in a continuation of effects on the historic environment, although these effects are likely to have already been addressed through conditions relating to the existing planning permission. As such, an uncertain minor adverse effect is expected.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	A significant negative effect is identified as the site is within close proximity (100m) of Leinthall Earls and therefore could adversely affect the character of local neighbourhoods of this settlement. Given the site is continuing to operate, this adverse effect is likely to have been addressed through conditions relating to the existing planning permission, and so the significant negative effect is uncertain.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	--?	This site is not within 800m of sustainable transport modes. Therefore employees are likely to use private cars which would have implications for road traffic and transport-related emissions. This negative effect is enhanced due to the potential adverse effect that the minerals site could have on road traffic emissions given its size (32.3ha). The continued operation of this site may

SA Objective	SA Score	Justification
		result in a continuation of effects on traffic emissions, although these are likely to be addressed through conditions relating to planning permission.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site as it contains a Local Wildlife Site. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is extracts crushed rock and is not within a flood risk zone. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as this site is entirely on Grade 3 or 3b agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town

SA Objective	SA Score	Justification
		and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before). Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission.

M07b Land west of Leinthall Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	This site is not itself within 100m of a school, hospital or settlement, but adjacent to the existing Leinthall Quarry and within 1km of Leinthall Earls. Potential effects from noise and transportation may therefore be exacerbated due to the operation of the existing and adjacent quarry. A significant negative effect is therefore given although this is uncertain as the extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site and the scale of the operation and the type of activities undertaken within the site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient	--	This site is not within 800m of sustainable transport links which could encourage private car use which will adversely affect road traffic and congestion. This negative effect is enhanced given that there are no main roads within 250m of the site which is likely to increase congestion and

SA Objective	SA Score	Justification
movement patterns in the County.		traffic on local roads.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	--	This site is not within 800m of sustainable transport links which could encourage private car use which will adversely affect local road traffic and air quality. This negative effect is enhanced given that there are no main roads within 250m of the site which is likely to increase traffic and associated emissions on local roads.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. However, all mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the

SA Objective	SA Score	Justification
		geodiversity of the site. The extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for crushed rock extraction and is not within a flood risk zone. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as this site is entirely on Grade 3 or 3b agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

M10a Perton Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the	+	The operation of this site will maintain levels of employment in the mineral industry. A minor

SA Objective	SA Score	Justification
provision of employment opportunities in the minerals and waste sectors.		positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	Mineral extraction at this operational site will result in continued investment in the minerals industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	-?	This site is not itself within 100m of a school, hospital, settlement or faith centre, although intersects with a Public Rights of Way. A minor negative effect is therefore identified although this is uncertain as effects on health and amenity associated with a potential loss of the Public Right of Way is likely to have already been addressed through conditions on the existing planning permission.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/--?	This site is within 800m of two bus stops which provides employees with access to the site via sustainable modes. However, there are no main roads within 250m of the site which is likely to increase congestion and traffic on local roads. The continued operation of this site may result in a continuation of effects on traffic and congestion, although these are likely to be addressed through conditions relating to planning permission. A mixed effect is identified.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. Therefore, the proposed minerals extraction at this operational site may result in a continuation of effects on the historic environment, although these effects are likely to have already been addressed through conditions relating to the existing planning permission. As such, an uncertain minor adverse effect is expected.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.

SA Objective	SA Score	Justification
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/--?	This site is within 800m of two bus stops which provides employees with access to the site via sustainable modes. However, there are no main roads within 250m of the site which is likely to increase congestion, emissions and traffic on local roads. The continued operation of this site may result in a continuation of traffic emissions, although these effects are likely to be addressed through conditions relating to planning permission. A mixed effect is identified.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the HMWLP or even at the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?/--?	An uncertain significant negative effect has been identified for the site as it contains a national site of geological interest in the form of Perton Roadside Section and Quarry SSSI, a Local Wildlife Site and an area of Ancient Woodland Inventory, comprised of primarily deciduous woodland. An uncertain minor positive effect is identified as extraction at this site may expose more geological features at the SSSI making them visible and available for learning opportunities. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.

SA Objective	SA Score	Justification
areas and open spaces.		
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site extracts crushed rock and is not within a flood risk zone. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	0	A negligible effect is identified as the site is not located on any areas of agricultural land Grade 1, 2 or 3.

M10b Land north west of Perton Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health	--?	This site is not itself within 100m of a school, hospital, settlement or faith centre, but adjacent to the existing Perton Quarry and within 1km of several settlements, including Dormington, Perton and Stoke Edith. Potential effects from noise and transportation may therefore be exacerbated due to the operation of the existing and adjacent quarry. A significant negative

SA Objective	SA Score	Justification
geographically and demographically.		effect is therefore given although this is uncertain as the extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site and the scale of the operation and the type of activities undertaken within the site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/--	This site is within 800m of two bus stops which would provide employees with access to the site via sustainable modes of transport. However, there are no main roads within 250m of the site which is likely to increase congestion and traffic on local roads. A mixed effect is therefore identified for this objective.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected, but this is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/--	This site is within 800m of two bus stops which would provide employees with access to the site via sustainable modes of transport. However, there are no main roads within 250m of the site which is likely to increase traffic on local roads and result in localised air pollution. A mixed effect is therefore identified for this objective.

SA Objective	SA Score	Justification
11. Promote effective restoration and appropriate after use of sites.	+++	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?/--?	An uncertain significant negative effect is identified for the site as it is located adjacent to Perton Roadside Section and Quarry SSSI and contains an area of deciduous woodland as listed on the Priority Habitat Inventory. An uncertain minor positive effect is identified as extraction at this site may expose more geological features at the SSSI making them visible and available for learning opportunities. The extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for crushed rock and is not within a flood risk zone. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is identified for this SA objective.
17. Value, protect and enhance soil	0	A negligible effect is identified as the site is not located on any areas of agricultural land Grade

SA Objective	SA Score	Justification
quality and resources.		1, 2 or 3.

M12 Callow Delve

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The proposed time extension for winning and working minerals at this site will maintain levels of employment in the mineral industry. A minor positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	Mineral extraction at this operational site will result in continued investment in the minerals industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	This site is not within 100m of a school, hospital, settlement or faith centre and is not expected to have an effect on this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	--?	The site is not within 800m of a sustainable transport link which could encourage employees to use private car. An uncertain significant negative effect is expected as the proposed extended time of operation of the site could continue such effects, although it is likely that effects of traffic congestion have been addressed through conditions to the current planning permission.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. Therefore, the proposed time extension for extracting minerals from the site may result in a continuation of effects on the historic environment, although these effects are likely to have already been addressed through conditions relating to the existing planning permission. As

SA Objective	SA Score	Justification
		such, an uncertain minor adverse effect is expected.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	--?	The site is not within 800m of a sustainable transport link which could encourage employees to use private car, thereby increasing transport-related emissions. An uncertain significant negative effect is expected as the proposed extended time of operation of the site could continue such effects, although it is likely that effects of traffic (and their associated emissions) have been addressed through conditions to the current planning permission.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	The site contains a Special Wildlife Site and woodland listed on the Ancient Woodland Inventory. Mineral extraction at this site has the potential to result in habitat loss and fragmentation which is likely to impact on species populations and movement. The extraction of minerals is also likely to alter the geodiversity of the site. The proposed time extension for extracting minerals from the site may result in a continuation of effects on biodiversity and geodiversity, although these effects are likely to have already been addressed through conditions relating to the existing planning permission. An uncertain minor negative effect is identified for this site.

SA Objective	SA Score	Justification
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is therefore identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for building stone and is not within a flood risk zone. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as this site is entirely on Grade 3 or 3b agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before). The proposed time extension for working the site may result in a continuation of these effects, although these effects are likely to have already been addressed through conditions relating to the existing planning permission.

M13 Black Hill Delve

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium

SA Objective	SA Score	Justification
		term, rather than in the long-term. However, this effect is uncertain as it will depend on the size of the site extension, which is unknown at this stage in the assessment.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The extension of this site will result in continued investment in the minerals industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	The site is not within 100m of a school, hospital, settlement or faith centre. A negligible effect is therefore identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	--?	The site is not within 800m of a sustainable transport link which could encourage employees to use private car. An uncertain significant effect is identified as it will depend on which part of the site will be extended, which is unknown at this stage in the assessment.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site comprises an operational site that is proposed to be extended and is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission, and are dependent on the design, scale and layout of the development, as well as which part of the site will be extended, which is unknown at this stage in the assessment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.

SA Objective	SA Score	Justification
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	--?	The site is not within 800m of a sustainable transport link which could encourage employees to use private car, thereby increasing transport-related emissions. An uncertain significant effect is identified as it will depend on which part of the site will be extended, which is unknown at this stage in the assessment.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	An uncertain significant negative effect is identified for the site as it is located within approximately 120m from Black Mountains SSSI with potential other habitats present as listed in the Priority Habitats Inventory. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact working and proposed design of the extension and subsequent restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone, or within 1km of a SSSI or SAC waterbody although is within 250m from the River Monnow which has a moderate ecological status. A minor negative effect is therefore given although this is uncertain as the hydrological connectivity of the river with the site is not known.

SA Objective	SA Score	Justification
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for building stone and is not within a flood risk zone. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	0	A negligible effect is identified as the site is not located on any areas of agricultural land Grade 1, 2 or 3.

M16 Llandraw Delve

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term. However, this effect is uncertain as it will depend on the size of the site extension, which is unknown at this stage in the assessment.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The extension of this site will result in continued investment in the minerals industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	The site is not within 100m of a school, hospital, settlement or faith centre. A negligible effect is therefore identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.

SA Objective	SA Score	Justification
and the rest of the county.		
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/--?	The site is within 800m of a sustainable transport link which could encourage employees to use private car. The extension of this site has the potential, however, to increase traffic particularly as the site is not within 250m of a main road, which could lead to congestion on local roads. Effects are uncertain as it will depend on which part of the site will be extended, which is unknown at this stage in the assessment.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site comprises an operational site that is proposed to be extended and is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission, and are dependent on the design, scale and layout of the development, as well as which part of the site will be extended, which is unknown at this stage in the assessment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/--?	The site is within 800m of a sustainable transport link which could encourage employees to use private car. The extension of this site has the potential, however, to increase traffic and traffic-related emissions particularly as the site is not within 250m of a main road, which could lead to localised air pollution. Effects are uncertain as it will depend on which part of the site will be extended, which is unknown at this stage in the assessment.
11. Promote effective restoration and	+++	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking

SA Objective	SA Score	Justification
appropriate after use of sites.		account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. However, all mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. The extent of the impact would be dependent on the exact working and proposed design of the extension and subsequent restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone or within 1km of a SSSI or SAC waterbody, although it is within 250m of the River Monnow which has a moderate ecological status. A minor negative effect is therefore given although this is uncertain as the hydrological connectivity of the river with the site is not known.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for building stone and is not within a flood risk zone. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	0	A negligible effect is identified as the site is not located on any areas of agricultural land Grade 1, 2 or 3.

M17 Pennylvani Delves

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The proposed time extension for winning and working minerals at this site will maintain levels of employment in the mineral industry. A minor positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	Mineral extraction at this operational site will result in continued investment in the minerals industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	The site is not within 100m of a school, hospital, settlement or faith centre and is not expected to have an effect on this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	--?	The site is not within 800m of sustainable transport links which could encourage car use by employees. This site has the potential to increase traffic particularly as the site is not within 250m of a main road, which could lead to congestion on local roads. An uncertain significant negative effect is expected as the proposed extended time of operation of the site could continue such effects, although it is likely that effects of traffic congestion have been addressed through conditions to the current planning permission.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. Therefore, the proposed time extension for extracting minerals from the site may result in a continuation of effects on the historic environment, although these effects are likely to have already been addressed through conditions relating to the existing planning permission. As such, an uncertain minor adverse effect is expected.
7. Value, protect and enhance the character and built quality of	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement

SA Objective	SA Score	Justification
settlements and neighbourhoods.		and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	--?	The site is not within 800m of sustainable transport links which could encourage car use by employees. This site has the potential to increase traffic particularly as the site is not within 250m of a main road, which could lead to localised air pollution. An uncertain significant negative effect is expected as the proposed extended time of operation of the site could continue such effects, although it is likely that effects of traffic (and traffic-related emissions) have been addressed through conditions to the current planning permission.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. However, all mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. The proposed time extension for extracting minerals from the site may result in a continuation of effects on biodiversity and geodiversity, although these effects are likely to have already been addressed through conditions relating to the existing planning permission.
13. Value, protect, enhance and restore the landscape quality of	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe;

SA Objective	SA Score	Justification
Herefordshire, including its rural areas and open spaces.		and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is therefore identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for building stone and is not within a flood risk zone. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	0	A negligible effect is identified as the site is not located on any areas of agricultural land Grade 1, 2 or 3.

M18 Sunnybank Delve

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The proposed time extension for winning and working minerals at this site will maintain levels of employment in the mineral industry. A minor positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	Mineral extraction at this operational site will result in continued investment in the minerals industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health	0	The site is not within 100m of a school, hospital, settlement or faith centre and is not expected to have an effect on this SA objective.

SA Objective	SA Score	Justification
geographically and demographically.		
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	--?	The site is not within 800m of sustainable transport links which could encourage car use by employees. This site has the potential to increase traffic particularly as the site is not within 250m of a main road, which could lead to congestion on local roads. An uncertain significant negative effect is expected as the proposed extended time of operation of the site could continue such effects, although it is likely that effects of traffic congestion have been addressed through conditions to the current planning permission.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. Therefore, the proposed time extension for extracting minerals from the site may result in a continuation of effects on the historic environment, although these effects are likely to have already been addressed through conditions relating to the existing planning permission. As such, an uncertain minor adverse effect is expected.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate	--?	The site is not within 800m of sustainable transport links which could encourage car use by employees. This site has the potential to increase traffic particularly as the site is not within

SA Objective	SA Score	Justification
change as well as its contribution to the problem.		250m of a main road, which could lead to localised air pollution. An uncertain significant negative effect is expected as the proposed extended time of operation of the site could continue such effects, although it is likely that effects of traffic have been addressed through conditions to the current planning permission.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified as the site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. However, all mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. The proposed time extension for extracting minerals from the site may result in a continuation of effects on biodiversity and geodiversity, although these effects are likely to have already been addressed through conditions relating to the existing planning permission.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is therefore identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for building stone and is not within a flood risk zone. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre.

SA Objective	SA Score	Justification
pollution.		A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	0	A negligible effect is identified as the site is not located on any areas of agricultural land Grade 1, 2 or 3.

M20 Westonhill Wood Delve

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term. However, this effect is uncertain as it will depend on the size of the site extension, which is unknown at this stage in the assessment.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The extension of this site will result in continued investment in the minerals industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	-?	The site is not within 100m of a school, hospital, settlement or faith centre, although the site intersects with a number of Public Rights of Way paths which could be lost to development. An uncertain minor negative effect is identified as it will depend on which part of the site will be extended, which is unknown at this stage in the assessment.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/--?	The site is within 800m of a bus stop which could reduce car use by encouraging employees to use public transport. The extension of this site has the potential, however, to increase traffic particularly as the site is large (73.4ha), which could lead to congestion and traffic generation. Effects are uncertain as it will depend on which part of the site will be extended, which is

SA Objective	SA Score	Justification
		unknown at this stage in the assessment.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	The site comprises an operational site that is proposed to be extended and is not adjacent to and does not contain any designated heritage features. However, there may be potential for adverse effects on buried archaeology from mineral extraction. As such, a minor adverse effect is expected. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission, and are dependent on the design, scale and layout of the development, as well as which part of the site will be extended, which is unknown at this stage in the assessment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/--?	The site is within 800m of a bus stop which could reduce car use by encouraging employees to use public transport. The extension of this site has the potential, however, to increase traffic particularly as the site is large (73.4ha), which could lead to localised air pollution. Effects are uncertain as it will depend on which part of the site will be extended, which is unknown at this stage in the assessment.
11. Promote effective restoration and appropriate after use of sites.	+++	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.

SA Objective	SA Score	Justification
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	An uncertain significant negative effect is identified for the site as it is located within approximately 130m from the River Wye SAC and SSSI. The entirety of the site is also designated as a Local Wildlife Site and is comprised of deciduous woodland as listed on the Priority Habitats Inventory. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact working and proposed design of the extension and subsequent restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	--?	This site is not within a Source Protection Zone or within 250m of a vulnerable waterbody, although the River Wye SSSI waterbody is approximately 100m north of the site. A significant negative effect is therefore identified although this is uncertain as the hydrological connectivity of the river with the site is not known.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This site is proposed for building stone and is not within a flood risk zone. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as this site partly comprises (<50%) Grade 2 agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before). There is further uncertainty as this will depend on which part of the site will be extended, which is unknown at this stage in the assessment.

M22 Land at South Hide Farm and South End Farm, Mathon

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	All site options could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	-?	The site is not within 100m of a school, hospital, settlement or faith centre, although the site intersects with a number of Public Rights of Way paths which could be lost to development. A minor negative effect is therefore identified although this is uncertain as the extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site and the scale of the operation and the type of activities undertaken within the site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	--	This site is not within 800m of sustainable transport links which could encourage private car use which will adversely affect road traffic and congestion. This negative effect is enhanced given that there are no main roads within 250m of the site which is likely to increase congestion and traffic on local roads.
6. Value, protect and enhance the county's historic environment and cultural heritage .	--?	The site contains several Grade II Listed Buildings. There may also be potential for adverse effects on buried archaeology from mineral extraction. A significant negative effect is identified however the effect is uncertain dependent on the design, scale and layout of the development which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.

SA Objective	SA Score	Justification
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as the site may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	--	This site is not within 800m of sustainable transport links which could encourage private car use. This negative effect is enhanced given that there are no main roads within 250m of the site which is likely to increase traffic on local roads resulting in localised air pollution.
11. Promote effective restoration and appropriate after use of sites.	++?/-?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this mineral site as the NPPF requires restoration to result in land of equal value being returned following the working of a site. However, the site is within an Aerodrome Safeguarding Zone and therefore there is potential for adverse impacts on aircraft safety from bird-strike. Effects are uncertain and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	An uncertain minor negative effect is identified for the site as it is within 100m of a Local Wildlife Site and contains the following habitats listed on the Priority Habitat Inventory: deciduous woodland, traditional orchard and semi-improved grassland. All mineral site options are likely to have negative impacts on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of the site. However, the extent of the impact would be dependent on the exact nature, working and proposed design of the restoration of the mineral site, which would not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	--?	The site is within the Malvern Hills AONB and will therefore have an uncertain negative effect on this SA objective.

SA Objective	SA Score	Justification
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone. However, it is adjacent to the Leigh-Cradley Brook which is of moderate ecological status. A minor negative effect is therefore identified although this is uncertain as the hydrological connectivity of the river with the site is not known.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	A small portion to the west of the site is within Flood Zone 2 and 3 however, the site is proposed for sand and gravel which is considered to be a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of a settlement, school, hospital or faith centre. A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as the site comprises Grade 3 agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3) will result in that land being lost to other uses. However, the effects are uncertain as Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before).

Area of Search Area A

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	Developments within the Areas of Search could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. The beneficial effects on employment opportunities are most likely to be experienced in the short and medium term, rather than in the long-term. The minor positive effect is combined with an uncertain effect as the generation of employment opportunities would be dependent on the type and scale of the mineral development within the area, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and	--?	Area of Search A contains a church, numerous Public Rights of Way paths and Leominster – Gorsty local cycle route. There is also a playing field in the south-east corner and a cemetery in

SA Objective	SA Score	Justification
reduce disparities in health geographically and demographically.		the north-west corner of the area. Leinthall Quarry is existing and within the western extent of Area of Search A. There are also numerous settlements within the area, including Orleton, Leinthall Starkes and Leinthall Earls. Although minerals can only be worked where they are found, the broad area of search provides opportunities for mineral working at sites that will not have adverse effects on health and amenity. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search A based on the constraints identified.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	Area of Search A is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?/--?	There are four bus stops within the Area of Search as well as Leominster – Gorsty local cycle route. There are limited main roads in the area, although the B4361 and B4362 are located in the south-east. Leinthall Quarry is within the western extent of the site and may enable efficient transportation of minerals where other new sites are established nearby. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on traffic. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, a mixed effect (uncertain minor positive/uncertain significant negative) is identified for this SA objective.
6. Value, protect and enhance the county's historic environment and cultural heritage.	--?	Area of Search A includes numerous designated heritage assets, including part of the Grade II* listed Croft Castle Registered Park and Garden, the Grade II listed Gatley Park Registered Park and Garden, part of Elton Hall and Haye Park unregistered parks and gardens, part of Orleton Conservation Area (which includes historic buildings and open space), Croft Ambrey (camp), Dovecot at Court House, Richard's Castle: a motte and bailey with an enclosed settlement and bowl barrow 280m east of Yatton Marsh Farm scheduled monuments, and multiple Grade I, II* and II listed buildings including the Grade I listed Church of St Bartholomew, tower about 10 metres east of Church of St Bartholomew, and the dovecote about 10 metres west of Court House Farmhouse. These features may be adversely affected by mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on

SA Objective	SA Score	Justification
		heritage assets. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search A.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	Area of Search A covers a large area and contains multiple settlements, such as Leinhall Starkes and Leinhall Earls. However, it is uncertain where mineral extraction proposals will come forward within the Area of Search. Should they be within 100m of settlements, there is the potential for adverse effects on the character and the built quality of neighbourhoods. Therefore, an uncertain significant negative effect is identified.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as mineral sites in the Area of Search may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for Area of Search A as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/--?	There are four bus stops within the Area of Search as well as Leominster – Gorsty local cycle route. There are limited main roads in the area, although the B4361 and B4362 are located in the south-east. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on climate change. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, a mixed effect (uncertain minor positive/uncertain significant negative) is identified for this SA objective.
11. Promote effective restoration and appropriate after use of sites.	+++	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this Area of Search as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until planning application stage.
12. Value, maintain, restore and	--?	Area of Search A contains SSSIs, Ancient Woodland, Local Wildlife Sites and habitats listed on

SA Objective	SA Score	Justification
expand county biodiversity and geodiversity.		the Priority Habitat Inventory. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on biodiversity and geodiversity. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search A.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	-?	Area of Search A does not contain any areas designated as AONB or areas classified under the Urban Fringe Sensitivity Analysis. However, the site does contain areas of open space and Registered Parks and Gardens. Effects are dependent on sensitivity and landscape character as well as the proposed design of the restoration of the mineral site, which would not be known until the planning application stage. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that do not have adverse effects on landscape quality or open spaces. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall an uncertain minor negative effect is identified.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	There are no Source Protection Zones within the Area of Search or vulnerable waterbodies. However, the River Teme SSSI waterbody is approximately 400m north-west of the area. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on water quality. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain minor negative effect is identified for Area of Search A based on the constraints identified.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	--?	There are Flood Zone 3 areas within the Area of Search. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on flood risk. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search A based on the constraints identified.
16. Minimise noise, light, and air pollution.	--?	There are no AQMAs within Area of Search A although there is a church in the north-east corner. Overall, an uncertain significant negative effect is identified for Area of Search A based on the constraints identified.
17. Value, protect and enhance soil	--?	Area of Search A comprises Grade 2, Grade 3, Grade 4, Grade 5 and Non-Agricultural land

SA Objective	SA Score	Justification
quality and resources.		according to the Agricultural Land Classification. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on Best and Most Versatile Agricultural Land. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search A.

Area of Search Area B

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	Development within the Area of Search could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. The beneficial effects on employment opportunities are most likely to be experienced in the short and medium term, rather than in the long-term. The minor positive effect is combined with an uncertain effect as the generation of employment opportunities would be dependent on the type and scale of the mineral development within the area, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	Area of Search B contains two schools, numerous Public Rights of Way paths, a playing field and allotments. There are also numerous settlements within the area, including Eardisland and Pembridge. Although minerals can only be worked where they are found, the broad area of search provides opportunities for mineral working at sites that will not have adverse effects on health and amenity. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search B based on the constraints identified.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county	+?	Area of Search B is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an

SA Objective	SA Score	Justification
and the rest of the county.		uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?/--?	There are fourteen bus stops within the Area of Search. There are limited main roads in the area, although the B4362 lies in the northern part of the Area of Search and the A44 is in the southern extent of the Area of Search. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on traffic. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, a mixed effect (uncertain minor positive/uncertain significant negative) is identified for this SA objective.
6. Value, protect and enhance the county's historic environment and cultural heritage.	--?	Area of Search B includes numerous designated heritage assets, including Burton Court, Court of Noke, Lynch Court and Staunton Park unregistered parks and gardens, Pembridge Conservation area and part of Eardisland Conservation Area (which both include historic buildings and open space), North Herefordshire Rowe Ditch, Motte SW of the church, Mound N of the church, 'Monk's Court', bowl barrow 460m south of Milton Cross, bowl barrow 490m south east of Milton Cross, moated site at Court House Farm and bowl barrow 550m south east of Milton Cross scheduled monuments, and multiple Grade I, II* and II buildings including the Grade I listed Church of St Mary and belfry approximately 5 metres north-east of the Church of St Mary. These features may be adversely affected by mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on heritage assets. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search B.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	Area of Search B covers a large area and contains multiple settlements, such as Pembridge and Shobdon. However, it is uncertain where mineral extraction proposals will come forward within the Area of Search. Should they be within 100m of settlements, there is the potential for adverse effects on the character and the built quality of neighbourhoods. Therefore, an uncertain significant negative effect is identified.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as mineral sites in the Area of Search may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.

SA Objective	SA Score	Justification
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for Area of Search B as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/--?	There are fourteen bus stops within the Area of Search. There are limited main roads in the area, although the B4362 lies in the northern part of the Area of Search and the A44 is in the southern extent of the Area of Search. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on climate change. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, a mixed effect (uncertain minor positive/uncertain significant negative) is identified for this SA objective.
11. Promote effective restoration and appropriate after use of sites.	++?/-?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this Area of Search as the NPPF requires restoration to result in land of equal value being returned following the working of a site. The restoration of mineral sites also offers the potential to deliver biodiversity gains in the long term, however, many sites are restored to wetland and grassland habitats which can attract large numbers of species that may in certain circumstances pose a hazard to aircraft. The south western part of Area of Search B is located within Shobdon Aerodrome Safeguarding Zone and therefore site restoration in this area has potential for adverse impacts on aircraft safety from bird-strike however the effect is dependent on the type of restoration proposed and eventually developed on a site. Overall, a mixed uncertain significant positive and uncertain minor negative effect is identified for Area of Search B. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	Area of Search B contains SSSIs, Ancient Woodland, Local Wildlife Sites and habitats listed on the Priority Habitat Inventory. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on biodiversity and geodiversity. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search B.

SA Objective	SA Score	Justification
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	-?	Area of Search B does not contain any areas designated as AONB or areas classified under the Urban Fringe Sensitivity Analysis. However, the Area of Search does contain areas of open space. Effects are dependent on sensitivity and landscape character as well as the proposed design of the restoration of the mineral site, which would not be known until the planning application stage. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that do not have adverse effects on landscape quality or open spaces. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall an uncertain minor negative effect is identified.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	There are no Source Protection Zones within the Area of Search or SSSI or SAC waterbodies within 1km. However, Pinsley Brook is within the Area of Search and has a poor ecological status. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on water quality. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain minor negative effect is identified for Area of Search B based on the constraints identified.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	--?	There are Flood Zone 3 areas within the Area of Search. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on flood risk. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search B based on the constraints identified.
16. Minimise noise, light, and air pollution.	--?	There are no AQMAs within Area of Search B although there are two schools. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on noise, light and air pollution. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search B based on the constraints identified.
17. Value, protect and enhance soil quality and resources.	--?	Area of Search B comprises mainly (>50%) Grade 2 land according to the Agricultural Land Classification. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on Best and Most Versatile Agricultural Land. The acceptability of any minerals extraction from this

SA Objective	SA Score	Justification
		area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search B.

Area of Search Area C

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	Development within the Area of Search could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. The beneficial effects on employment opportunities are most likely to be experienced in the short and medium term, rather than in the long-term. The minor positive effect is combined with an uncertain effect as the generation of employment opportunities would be dependent on the type and scale of the mineral development within the area, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	Area of Search C contains two schools, four churches, numerous Public Rights of Way paths and two public parks. There are also numerous settlements within the area, Wellington, Sutton St Nicholas and Moreton on Lugg. Although minerals can only be worked where they are found, the broad area of search provides opportunities for mineral working at sites that will not have adverse effects on health and amenity. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search C based on the constraints identified.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	Area of Search C is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable	+?/--?	There are numerous bus stops within the Area of Search. There are limited main roads in the area, although the A465, A4110 and A49 lie within the Area of Search. Although minerals can

SA Objective	SA Score	Justification
modes of transport and efficient movement patterns in the County.		only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on traffic. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, a mixed effect (uncertain minor positive/uncertain significant negative) is identified for this SA objective.
6. Value, protect and enhance the county's historic environment and cultural heritage.	--?	Area of Search C includes numerous designated heritage assets, including part of Dinmore Manor and New Court unregistered parks and gardens, Sutton Court and The Vern unregistered parks and gardens, Wellington, Sutton, part of Ayleston Hill and part of Bodenham Conservation Areas (which include historic buildings and open space), Sutton Walls (camp), Lugg Bridge, deserted medieval village, Sutton St Michael, The Wergins Stone, Freen's Court magnate's residence, moat and fishponds, Sutton St Michael, Churchyard cross in St Peter's churchyard and churchyard cross in St Margaret of Antioch's churchyard scheduled monuments, and multiple Grade I, II* and II listed buildings including the Grade I listed Church of St Margaret and Church of St Mary. These features may be adversely affected by mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on heritage assets. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search C.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	Area of Search C covers a large area and contains multiple settlements, such as Wellington and Marden. However, it is uncertain where mineral extraction proposals will come forward within the Area of Search. Should they be within 100m of settlements, there is the potential for adverse effects on the character and the built quality of neighbourhoods. Therefore, an uncertain significant negative effect is identified.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as mineral sites in the Area of Search may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for Area of Search C as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from

SA Objective	SA Score	Justification
		inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/--?	There are numerous bus stops within the Area of Search. There are limited main roads in the area, although the A465, A4110 and A49 lie within the Area of Search. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on climate change. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, a mixed effect (uncertain minor positive/uncertain significant negative) is identified for this SA objective.
11. Promote effective restoration and appropriate after use of sites.	++?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this Area of Search as the NPPF requires restoration to result in land of equal value being returned following the working of a site. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	Area of Search C contains an SAC, SINC, SSSIs, Ancient Woodland, Local Wildlife Sites and habitats listed on the Priority Habitat Inventory as well as Queenswood Country Park. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on biodiversity and geodiversity. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search C.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	--?	Area of Search C does not contain any areas designated as AONB. However, the Area of Search does contain areas of high Urban Fringe Sensitivity Analysis, open spaces as well as both Green Infrastructure Corridors and Enhancement Zones. Effects are dependent on sensitivity and landscape character as well as the proposed design of the restoration of the mineral site, which would not be known until the planning application stage. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on landscape quality or open spaces. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall an uncertain significant negative effect is identified.

SA Objective	SA Score	Justification
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	--?	There are small areas falling within Source Protection Zones 1, 2 and 3 within the Area of Search. Wellington Brook is within the Area of Search and has a poor ecological status. Moreton Brook is also within the Area of Search and has a bad ecological status. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on water quality. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search C based on the constraints identified.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	--?	There are Flood Zone 3 areas within the Area of Search. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on flood risk. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search C based on the constraints identified.
16. Minimise noise, light, and air pollution.	--?	There are no AQMAs within Area of Search C although there are five schools and four churches. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on noise, light and air pollution. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search C based on the constraints identified.
17. Value, protect and enhance soil quality and resources.	--?	Area of Search C comprises mainly (>50%) Grade 1 and 2 land according to the Agricultural Land Classification. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on Best and Most Versatile Agricultural Land. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search C.

Area of Search Area D

SA Objective	SA Score	Justification
--------------	----------	---------------

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	Developments within the Area of Search could have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. The beneficial effects on employment opportunities are most likely to be experienced in the short and medium term, rather than in the long-term. The minor positive effect is combined with an uncertain effect as the generation of employment opportunities would be dependent on the type and scale of the mineral development within the area, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of mineral sites for extraction will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	Area of Search D is within 100m of a church and contains numerous Public Rights of Way. There are also two public parks in the area. The settlements of Woolhope Cockshoot and Putley are within the Area of Search, as is the existing Perton Quarry. Although minerals can only be worked where they are found, the broad area of search provides opportunities for mineral working at sites that will not have adverse effects on health and amenity. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search D based on the constraints identified.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	Area of Search D is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?/--?	There are three bus stops within the Area of Search. There are no main roads in the area, although the A438 is approximately 100m to the north. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on traffic. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, a mixed effect (uncertain minor positive/uncertain significant negative) is identified for this SA objective.
6. Value, protect and enhance the county's historic environment and	--?	Area of Search D includes numerous designated heritage assets, including part of the Stoke Edith Register Park and Garden, the Devereux Park unregistered park and garden, and

SA Objective	SA Score	Justification
cultural heritage.		numerous Grade II listed buildings. These features may be adversely affected by mineral extraction. Additionally, there may be potential for adverse effects on buried archaeology from mineral extraction. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on heritage assets. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search D.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	Area of Search D covers a large area and overlaps with the settlements of Stoke Edith and Checkley. However, it is uncertain where mineral extraction proposals will come forward within the Area of Search. Should they be within 100m of settlements, there is the potential for adverse effects on the character and the built quality of neighbourhoods. Therefore, an uncertain significant negative effect is identified.
8. Move treatment of waste up the waste hierarchy.	-?	An uncertain minor negative effect is identified as mineral sites in the Area of Search may dispose of inert or landfill waste, depending on the type of restoration proposed, which is unknown at this stage.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for Area of Search D as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. New potential mineral sites are not classed as inappropriate development and these allocations would have a positive effect on this objective as they provide a degree of protection to mineral resources from inappropriate non-mineral development.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/--?	There are three bus stops within the Area of Search. There are no main roads in the area, although the A438 is approximately 100m to the north. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on climate change. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, a mixed effect (uncertain minor positive/uncertain significant negative) is identified for this SA objective.
11. Promote effective restoration and appropriate after use of sites.	++?/--?	The NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. As such, a significant positive effect is identified for this Area of Search as the NPPF requires restoration to result in land of equal value being returned following the working of a site. The restoration of mineral sites also

SA Objective	SA Score	Justification
		offers the potential to deliver biodiversity gains in the long term, however, many sites are restored to wetland and grassland habitats which can attract large numbers of species that may in certain circumstances pose a hazard to aircraft. The eastern part of Area of Search D is located within Gloucestershire Aerodrome Safeguarding Zone and therefore site restoration in this area has potential for adverse impacts on aircraft safety from bird-strike however the effect is dependent on the type of restoration proposed and eventually developed on a site. Overall, a mixed effect (uncertain significant positive and uncertain minor negative) is identified for Area of Search D. This effect is uncertain, dependent on the type of restoration proposed and eventually developed on a site, which will not be known until planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	Area of Search D contains SSSIs, SINCs, Ancient Woodland, and habitats listed on the Priority Habitat Inventory. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on biodiversity and geodiversity. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain significant negative effect is identified for Area of Search D.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	--?	Area of Search D contains part of Wye Valley designated AONB as well as areas of open space. Effects are dependent on sensitivity and landscape character as well as the proposed design of the restoration of the mineral site, which would not be known until the planning application stage. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on landscape quality or open spaces. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall an uncertain significant negative effect is identified.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	There are no Source Protection Zones within the Area of Search. Wellington Brook is within the Area of Search and has a poor ecological status. Pentoloe Brook is also within the Area of Search and has a poor ecological status. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on water quality. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, a minor negative effect is identified for Area of Search D based on the constraints identified.
15. Reduce the risk of flooding and	0	There are no flood zone areas within the Area of Search and therefore a negligible effect is

SA Objective	SA Score	Justification
the resulting detriment to public well-being, the economy and the environment.		identified for this SA objective.
16. Minimise noise, light, and air pollution.	--?	The extent of noise, vibration and light pollution will depend on the type of mineral extracted from the site, the scale of the operation, the type of activities undertaken. The extent to which receptors experience such will depend on proximity to the site. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on noise, light and air pollution. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. There are no AQMAs within Area of Search D although there is a church within 100m. Overall, an uncertain significant negative effect is identified for Area of Search D based on the constraints identified.
17. Value, protect and enhance soil quality and resources.	-?	Area of Search D comprises Grade 3, Grade 4 and Non-Agricultural land according to the Agricultural Land Classification. Although minerals can only be worked where they are found, the broad areas of search provide opportunities for mineral working at sites that will not have adverse effects on Best and Most Versatile Agricultural Land. The acceptability of any minerals extraction from this area would need to be assessed against the minerals and other relevant policies of the HMWLP. Overall, an uncertain minor negative effect is identified for Area of Search D.

Appendix 7

Detailed SA matrices for the waste site options

W05 Leominster HWS and HWRC

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The continued operation of this site will maintain levels of employment in the waste industry. A minor positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The operational waste management facility will result in continued investment in the waste industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	-?	A minor negative effect is identified as this site intersects Public Right of Way route ZC1 which could lead to the loss of this recreational asset. The site is not within 100m of any sensitive receptors and although it is within 1km of the settlement of Leominster, it is not within 1km of another existing mineral or waste site. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Leominster site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-?	This site is within 800m of six bus stops, and Leominster to Gorsty local cycle route is within 430m to the north which will enable employees to access the site without having to rely on private car, thereby reducing road traffic. Given the nature and size of the site, a minor negative effect is however acknowledged due to likelihood of local traffic generation, although this is uncertain as it is likely that increased road traffic on these routes will have been addressed as part of the conditions for the existing site.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0	The site is not adjacent to and does not contain any designated heritage features. The continued operation of the site is unlikely to have an effect on the historic environment.
7. Value, protect and enhance the character and built quality of	--?	A significant negative effect is identified as the site is within close proximity (100m) of Leominster and therefore could adversely affect the character of local neighbourhoods of this

SA Objective	SA Score	Justification
settlements and neighbourhoods.		settlement. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Leominster site.
8. Move treatment of waste up the waste hierarchy.	++?	A significant positive effect is identified as this site is an operational household waste recycling centre which processes waste that would otherwise be landfilled. Effects are uncertain as this site may be used for different wastes or different technologies than are currently present.
9. Promote sustainable use of mineral resources.	0	A negligible effect has been identified as the site does not intersect with any Mineral Safeguarding Areas and is not within a Preferred Area of Search.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-?	This site is within 800m of six bus stops, and Leominster to Gorsty local cycle route is within 430m to the north which will enable employees to access the site without having to rely on private car, thereby reducing local traffic emissions. Given the nature and size of the site, a minor negative effect is however acknowledged due to likelihood of local traffic generation and therefore emissions, although this is likely to have been addressed through the conditions to the existing planning permission.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore, an uncertain positive effect is identified for this site.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	A significant negative effect is identified for the site as it is located within approximately 30m of the River Lugg SSSI as well as being located within both a Green Infrastructure Corridor and Enhancement Zone. There is the potential for adverse effects on biodiversity as waste sites within a GI corridor may fragment ecological areas and green spaces thereby impacting on species movement. Uncertainty will be attached to all effects on this SA objective as effects will very much depend on the design and operation of waste treatment activities and these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Leominster site.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural	-?	An uncertain minor negative effect is identified as the site is within both a Green Infrastructure Corridor and Enhancement Zone. Site options within these corridors could contribute to fragmentation of these assets thereby reducing their positive contribution to character and local

SA Objective	SA Score	Justification
areas and open spaces.		distinctiveness. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Leominster site.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	--?	This site is within a Source Protection Zone 3 and the River Lugg (identified as having a moderate ecological status) is within 250m. The River Lugg is also designated as a SSSI waterbody. A significant negative effect is therefore given, although this effect is uncertain as it is likely that any adverse effects on the water environment have already been addressed through conditions to the existing planning permission.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	Waste treatment (except landfill and hazardous waste facilities) is classed as 'less vulnerable' and is therefore considered suitable in Flood Zones 1, 2 and 3a but unsuitable in Flood Zone 3b (the functional flood plain). This site is within Flood Zone 2 but not Flood Zone 3. A negligible effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	--?	This site is within 100m of the settlement of Leominster. A significant negative effect is given although this is uncertain as it is likely that effects on noise, light and air pollution will have already been addressed through the conditions on the existing planning permission.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as this site is entirely on Grade 3 agricultural land. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Leominster site.

W07 Ledbury HWRC

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The continued operation of this site will maintain levels of employment in the waste industry. A minor positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The operational waste management facility will result in continued investment in the waste industry in Herefordshire. Therefore, a minor positive effect is identified.

SA Objective	SA Score	Justification
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	--?	The site is within 100m of the settlement of Leominster and a wastewater treatment works facility which could have a cumulative negative effect on the amenity of the community. Overall, a significant negative effect is given, although this is uncertain as it is likely that these effects have already been addressed through conditions relating to the existing planning permission for the site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-?	This site is within 800m of a number of bus stops and local cycle routes which will enable employees to access the site without having to rely on private car, thereby reducing road traffic. Given the nature and size of the site, a minor negative effect is acknowledged due to likelihood of local traffic generation, although this is uncertain as it is likely that traffic congestion will have been addressed as part of the conditions for the existing site.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0	The site is not adjacent to and does not contain any designated heritage features. The continued operation of the site is not expected to have an effect on the historic environment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	A significant negative effect is identified as the site is within close proximity (100m) of Ledbury and therefore could adversely affect the character of local neighbourhoods of this settlement. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Ledbury site.
8. Move treatment of waste up the waste hierarchy.	++?	A significant positive effect is identified as this site is an operational household waste recycling centre which processes waste that would otherwise be landfilled. Effects are uncertain as this site may be used for different wastes or different technologies than are currently present.
9. Promote sustainable use of mineral resources.	0	A negligible effect has been identified as the site does not intersect with any Mineral Safeguarding Areas and is not within a Preferred Area of Search.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to	+/-?	This site is within 800m of a number of bus stops and local cycle routes which will enable employees to access the site without having to rely on private car, thereby reducing local traffic emissions. Given the nature and size of the site, a minor negative effect is acknowledged due to

SA Objective	SA Score	Justification
the problem.		likelihood of local traffic generation and therefore emissions, although this is likely to have been addressed through the conditions to the existing planning permission.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore, an uncertain positive effect is identified for this site.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	An uncertain negligible effect is identified as the site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. The site is also not located within either a Green Infrastructure Corridor or Enhancement Zone and does not contain any areas of Ancient Woodland or areas listed on the Priority habitats Inventory. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Ledbury site.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone, although the River Leadon (identified as having a moderate ecological status) is within 250m. A minor negative effect is therefore given, although this effect is uncertain and dependent on the hydrological connectivity of the site with the river. In addition, the uncertainty also reflects the fact that this issue is likely to have been addressed through conditions to the existing planning permission.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	Waste treatment facilities (except landfill and hazardous waste facilities) are classed as 'less vulnerable' and are therefore considered suitable in Flood Zones 1, 2 and 3a but unsuitable in Flood Zone 3b (the functional flood plain). This site is not within a Flood Zone. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	--?	This site is within 100m of the settlement of Ledbury. A significant negative effect is identified although the effect is uncertain as it is likely that effects will have already been addressed

SA Objective	SA Score	Justification
		through the conditions on the existing planning permission.
17. Value, protect and enhance soil quality and resources.	0	A negligible effect is identified as the site is within an urban setting and therefore no agricultural soils will be adversely impacted.

W10 Kington HWRC

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The continued operation of this site will maintain levels of employment in the waste industry. A minor positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The operational waste management facility will result in continued investment in the waste industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	The site is not within 100m of a school, settlement, faith centre or hospital. Overall, a negligible effect is identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-?	This site is within 800m of a number of bus stops which will enable employees to access the site without having to rely on private car, thereby reducing road traffic. Given the nature and size of the site, a minor negative effect is acknowledged due to likelihood of local traffic generation, although this is uncertain as it is likely that traffic generation will have been addressed as part of the conditions for the existing site.

SA Objective	SA Score	Justification
6. Value, protect and enhance the county's historic environment and cultural heritage.	0	The site is not adjacent to and does not contain any designated heritage features. The continued operation of the site is not expected to have an effect on the historic environment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	A significant negative effect is identified as the site is within close proximity (100m) of Headbrook and therefore could adversely affect the character of local neighbourhoods of this settlement. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Kington site.
8. Move treatment of waste up the waste hierarchy.	++?	A significant positive effect is identified as this site is an operational household waste recycling centre which processes waste that would otherwise be landfilled. Effects are uncertain as this site may be used for different wastes or different technologies than are currently present.
9. Promote sustainable use of mineral resources.	0	A negligible effect has been identified as the site does not intersect with any Mineral Safeguarding Areas and is not within a Preferred Area of Search.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-?	This site is within 800m of a number of bus stops which will enable employees to access the site without having to rely on private car, thereby reducing local traffic emissions. Given the nature and size of the site, a minor negative effect is acknowledged due to likelihood of local traffic generation and therefore emissions, although this is likely to have been addressed through the conditions to the existing planning permission.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore, an uncertain positive effect is identified for this site.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	A minor negative effect is identified as the site is located within a Green Infrastructure Enhancement Zone. There is the potential for adverse effects on biodiversity as waste sites within a GI area may fragment ecological areas and green spaces thereby impacting on species movement. Uncertainty will be attached to all effects on this SA objective as effects will very much depend on the design and operation of waste treatment activities and these are likely to have already been addressed through conditions relating to the existing planning permission of

SA Objective	SA Score	Justification
		the operational Kington site.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	-?	An uncertain minor negative effect is identified as the site is within a Green Infrastructure Enhancement Zone. Site options within GI areas could contribute to fragmentation of these assets thereby reducing their positive contribution to character and local distinctiveness. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Kington site.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI waterbody. A negligible effect is therefore identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	Waste treatment facilities (except landfill and hazardous waste facilities) are classed as 'less vulnerable' and are therefore considered suitable in Flood Zones 1, 2 and 3a but unsuitable in Flood Zone 3b (the functional flood plain). This site is not within a Flood Zone. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	--?	This site is within 100m of the settlement of Kington. A significant negative effect is identified although this effect is uncertain as it is likely that effects will have already been addressed through the conditions on the existing planning permission.
17. Value, protect and enhance soil quality and resources.	--?	A significant negative effect is identified as the site comprises entirely Grade 2 agricultural land. Development on high quality agricultural land (Grade 1, 2 and 3a) will result in that land being lost to other uses. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational Kington site.

W13 Former Lugg Bridge Quarry

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The continued operation and intensification of this site will maintain and increase levels of employment in the waste industry. A minor positive effect is identified for this SA objective.

SA Objective	SA Score	Justification
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The operational waste management facility will result in continued investment in the waste industry in Herefordshire. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	The site is not within 100m of a school, settlement, faith centre or hospital. Overall, a negligible effect is identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-?	This site is within 800m of two bus stops which will enable employees to access the site without having to rely on private car, thereby reducing road traffic. Given the nature and size of the site, a minor negative effect is acknowledged due to likelihood of local traffic generation, although this is uncertain as it is likely that traffic generation will have been addressed as part of the conditions for the existing site.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0	The site is not adjacent to and does not contain any designated heritage features. The continued operation of the site is not expected to have an effect on the historic environment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	++?	A significant positive effect is identified as this site is an operational site, recovering construction, demolition and excavation waste which, if expanded, would have a significant positive effect on the recovery of waste. Effects are uncertain as this site may be used for different wastes or different technologies than are currently present.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. This site comprises a former quarry, therefore the mineral resources at the site would already have been extracted

SA Objective	SA Score	Justification
		and could not be sterilised.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-?	This site is within 800m of two bus stops which will enable employees to access the site without having to rely on private car, thereby reducing local traffic emissions. Given the nature and size of the site, a minor negative effect is acknowledged due to likelihood of local traffic generation and therefore emissions, although this is likely to have been addressed through the conditions to the existing planning permission.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore, an uncertain positive effect is identified for this site.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	--?	A significant negative effect is identified for the site as it is located within approximately 190m of the River Wye SAC and River Lugg SSSI. Depending on the type of waste facility, there is potential for vermin, gulls and corvids (crow family) to be attracted to the site which may prey upon species, particularly the eggs and young of nesting birds. Uncertainty will be attached to all effects on this SA objective as effects will very much depend on the design and operation of waste treatment activities and these are likely to have already been addressed through conditions relating to the existing planning permission of the operational site.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	--?	This site is not within a Source Protection Zone, but is within 250m of the River Lugg which has a moderate ecological status. The river is also classified as a SSSI waterbody. A significant negative effect is given although this is uncertain and dependent on the hydrological connectivity of the site with the river. In addition, uncertainty also exists given that it is likely that this issue will have been addressed through conditions on the existing planning permission.
15. Reduce the risk of flooding and the resulting detriment to public well-	0	Waste treatment facilities (except landfill and hazardous waste facilities) are classed as 'less vulnerable' and are therefore considered suitable in Flood Zones 1, 2 and 3a but unsuitable in

SA Objective	SA Score	Justification
being, the economy and the environment.		Flood Zone 3b (the functional flood plain). This site is partly within Flood Zone 2. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within 100m of a school, settlement, faith centre or hospital, nor is it within an AQMA. A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as this site is entirely on Grade 3 agricultural land. Effects are uncertain as these are likely to have already been addressed through conditions relating to the existing planning permission of the operational site.

W19 City Spares MRS

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	Employment opportunities may be created during the development and operation of waste management facilities at this site. A minor positive effect rather than a significant positive effect is expected for this site as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The development of new waste management infrastructure at this site will assist in the delivery of the circular economy and will encourage long-term investment in Herefordshire's waste sector. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	The site is not within 100m of a school, settlement, faith centre or hospital. A negligible effect is therefore identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site preparation, operation and restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable	+/-	This site is within 800m of a number of bus stops, local cycle paths and NCN44 which will enable employees to access the site without having to rely on private car, thereby reducing road traffic.

SA Objective	SA Score	Justification
modes of transport and efficient movement patterns in the County.		Given the nature and size of the site, a minor negative effect is acknowledged due to likelihood of local traffic generation.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0?	The site is not adjacent to and does not contain any designated heritage features. Development of waste facilities at this site is not expected to have an effect on the historic environment. However, effects are uncertain and will depend on the design and scale of the waste facility which is unknown at this stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	--?	A significant negative effect is identified as the site is within close proximity (100m) of a settlement and therefore could adversely affect the character of local neighbourhoods. However, effects are uncertain depending on the design of the development and the contribution the land makes to the local distinctiveness and setting of an area.
8. Move treatment of waste up the waste hierarchy.	++?/-?	Mixed effects (uncertain significant positive/uncertain minor negative) are expected for W19 as the site may provide energy recovery facilities, either biological (such as anaerobic digestion) which would have a significant positive effect or combustion with energy recovery (such as incineration or gasification) which would have a minor negative effect on driving waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	0	A negligible effect is identified as the site does not intersect with a Mineral Safeguarding Area or a Preferred Area of Search.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-	This site is within 800m of a number of bus stops, local cycle routes and NCN44 which will enable employees to access the site without having to rely on private car, thereby reducing local traffic emissions. Given the nature and size of the site, a minor negative effect is acknowledged due to likelihood of local traffic generation and therefore emissions.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore, an uncertain positive effect is identified for this site.
12. Value, maintain, restore and expand county biodiversity and	-?	An uncertain minor negative effect is identified for the site as it is located within approximately 865m of the River Wye SAC and SSSI as well as being located within a Green Infrastructure

SA Objective	SA Score	Justification
geodiversity.		Enhancement Zone. There is the potential for adverse effects on biodiversity as waste sites within a GI area may fragment ecological areas and green spaces thereby impacting on species movement. Uncertainty will be attached to all effects on this SA objective as effects will very much depend on the design and operation of waste treatment activities.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	-?	An uncertain minor negative effect is identified as the site is within a Green Infrastructure Enhancement Zone. Site options within GI areas could contribute to fragmentation of these assets thereby reducing their positive contribution to character and local distinctiveness. However, effects are uncertain and will depend on the design and scale of the waste facility which is unknown at this stage.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone, or within 250m of a vulnerable waterbody, but is within 1km of the River Wye SSSI waterbody. A minor negative effect is given although this is uncertain and dependent on the hydrological connectivity of the site with the river.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	Waste treatment facilities (except landfill and hazardous waste facilities) are classed as 'less vulnerable' and are therefore considered suitable in Flood Zones 1, 2 and 3a but unsuitable in Flood Zone 3b (the functional flood plain) . This site is not within a Flood Zone. A negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within 100m of a school, settlement, faith centre or hospital, nor is it within an AQMA. A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	-?	An uncertain minor negative effect is identified as this site is entirely on Grade 3 agricultural land. However, effects are uncertain and will depend on the design and scale of the waste facility which is unknown at this stage.

W43 Upper Lyde Quarry (M03)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and	+	The site is considered an appropriate location for the disposal of inert waste in order to recover the land for beneficial purposes. Therefore, employment opportunities may be created during the restoration of the site. A minor positive effect is expected as restoration is unlikely to

SA Objective	SA Score	Justification
waste sectors.		generate significant numbers of jobs.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The restoration of this quarry for inert waste disposal would contribute to continued investment in Herefordshire's mineral and waste sector. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	The site is not within 100m of a school, settlement, faith centre or hospital. A negligible effect is therefore identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-	This site is within 800m of six bus stops which would enable people employed to restore the site to easily access the site via sustainable transport. A minor negative effect is acknowledged, however, given the potential for the site to generate traffic during restoration.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0	The site is not adjacent to and does not contain any designated heritage features. Inert waste disposal at the quarry is not expected to have an effect on the historic environment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located at Upper Lyde Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. This site would involve

SA Objective	SA Score	Justification
		inert waste disposal to restore a quarry, therefore the mineral resources at the site would already have been extracted and could not be sterilised.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-	This site is within 800m of six bus stops which would enable people employed to restore the site to easily access the site via sustainable transport. A minor negative effect is acknowledged, however, given the potential for the site to generate traffic and therefore emissions during restoration.
11. Promote effective restoration and appropriate after use of sites.	++?	The site is considered an appropriate location for the disposal of inert waste in order to recover the land for beneficial purposes. Therefore, a significant positive effect is identified, however, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?	<p>The site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. The site is also not located within either a Green Infrastructure Corridor or Enhancement Zone and does not contain any areas of Ancient Woodland or areas listed on the Priority Habitats Inventory.</p> <p>The site is proposed for inert waste disposal following extraction which offers the potential to deliver biodiversity gains in the long term as restoration often involves the creation of species rich wetland or grassland habitats. Therefore, a minor positive effect is identified, however, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.</p>
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+?	An uncertain minor positive effect is identified for the site as the disposal of inert waste at the site will restore the quality of the landscape at the former mineral site. However, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This site is not within a Source Protection Zone, within 250m of a vulnerable waterbody or within 1km of a SSSI or SAC waterbody. A negligible effect is therefore identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the	+	This site is not within a Flood Zone. The restoration of the site through the disposal of inert waste will help to increase permeable land cover in the county which will contribute towards flood attenuation. Furthermore, the restoration of sites could create new wetland habitat that

SA Objective	SA Score	Justification
environment.		provides flood storage. A minor positive effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within 100m of a school, settlement, faith centre or hospital, nor is it within an AQMA. A negligible effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	++?	The site is currently classified as comprising mainly (>50%) Grade 2 and 3a agricultural land. The site is proposed as an appropriate location for the disposal of inert waste as part of the restoration of a former mineral site. Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before). Therefore, a significant positive effect is identified, however, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.

W44 Shobdon Quarry (M04)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The site is considered an appropriate location for the disposal of inert waste in order to recover the land for beneficial purposes. Therefore, employment opportunities may be created during the restoration of the site. A minor positive effect is expected as restoration is unlikely to generate significant numbers of jobs.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The restoration of this quarry for inert waste disposal would contribute to continued investment in Herefordshire's minerals and waste sector . Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0	This site is not within 100m of a school, hospital, faith centre or settlement. A negligible effect is therefore identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county	+?	The site is expected to result in a small number of jobs during restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.

SA Objective	SA Score	Justification
and the rest of the county.		
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-	This site is within 800m of two bus stops which would enable people employed to restore the site to easily access the site via sustainable transport. A minor rather than a significant negative effect is identified as, although there is potential for the site to generate traffic on local roads during restoration as it is more than 250m from a main road, the restoration of the site is not expected to result in high numbers of lorry movements. Furthermore, this effect is likely to be experienced in the short-term.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0	The site is not adjacent to and does not contain any designated heritage features. Therefore, inert waste disposal at the quarry is not expected to have an effect on the historic environment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	A negligible effect is identified as the site is not within close proximity (100m) of a settlement and is therefore unlikely to affect the character and quality of the built environment.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located at Shobdon Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. This site would involve inert waste disposal to restore a quarry, therefore the mineral resources at the site would already have been extracted and could not be sterilised.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-	This site is within 800m of two bus stops which would enable people employed to restore the site to easily access the site via sustainable transport. A minor rather than a significant negative effect is acknowledged, however, given the potential for the site to generate traffic on local roads and localised air pollution during restoration as it is more than 250m from a main road.
11. Promote effective restoration and appropriate after use of sites.	++?/-?	A significant positive effect is identified for this site as it is considered an appropriate location for the disposal of inert waste in order to recover the land for beneficial purposes. A minor negative effect is also identified as the site is within the Shobdon Airfield Aerodrome Safeguarding Zone and there is potential for adverse impacts on aircraft safety from bird-strike

SA Objective	SA Score	Justification
		particularly if the site is restored to wetland and grassland habitats which can attract large numbers of species that may in certain circumstances pose a hazard to aircraft. However the effects are dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?/-?	<p>The site does not contain, or is unlikely to have, an adverse impact on any internationally, nationally or locally designated biodiversity or geodiversity sites. The site is also not located within either a Green Infrastructure Corridor or Enhancement Zone and does not contain any areas of Ancient Woodland or areas listed on the Priority habitats Inventory.</p> <p>A minor positive effect is identified as the site is proposed for inert waste disposal following extraction which offers the potential to deliver biodiversity gains in the long term as restoration often involves the creation of species rich wetland or grassland habitats. A minor negative effect is identified as the site is within the Shobdon Aerodrome Safeguarding Zone where there is potential for bird-strike from aircrafts. The effects are uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.</p>
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+?	A uncertain minor positive effect is identified for the site as the disposal of inert waste at the site will restore the quality of the landscape at the former mineral site. However, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This site is not within a Source Protection Zone or within 1km of a SSSI or SAC waterbody, but is within 250m of Pinsley Brook which has a 'poor' ecological status. A minor negative effect is given although this is uncertain and dependent on the proximity/hydrological connectivity to Pinsley Brook.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+	This site is partly within Flood Zone 2. The restoration of the site through the disposal of inert waste will help to increase permeable land cover in the county which will contribute towards flood attenuation. Furthermore, the restoration of sites could create new wetland habitat that provides flood storage. A minor positive effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	0	This site is not within an AQMA or within 100m of residential areas, schools, hospitals or faith centres. A negligible effect is therefore identified for this SA objective.

SA Objective	SA Score	Justification
17. Value, protect and enhance soil quality and resources.	++?	The site is currently classified as comprising mainly (>50%) Grade 2 and 3a agricultural land. The site is proposed as an appropriate location for the disposal of inert waste as part of the restoration of a former mineral site. Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before). Therefore, a significant positive effect is identified, however, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.

W45 Wellington Quarry (M05)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The site is considered an appropriate location for the disposal of inert waste in order to recover the land for beneficial purposes. Therefore, employment opportunities may be created during the restoration of the site. A minor positive effect is expected as restoration is unlikely to generate significant numbers of jobs.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The restoration of this quarry for inert waste disposal would contribute to continued investment in Herefordshire's mineral and waste sector. Therefore, a minor positive effect is identified.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?/-?	<p>This site is within 100m of residential areas in the settlements of Wellington and Moreton on Lugg and the disposal of inert waste during the restoration of the site may have adverse effects on the amenity of the nearby communities, however, this effect is judged to be a minor rather than a significant negative and will be experienced in the short-term.</p> <p>The site also intersects with two Public Rights of Way routes. As Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before), it is likely that the Public Rights of Way will be reinstated as part of the restoration. However, the effect is uncertain and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.</p>

SA Objective	SA Score	Justification
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	The site is expected to result in a small number of jobs during site restoration which may help to reduce employment deprivation. Therefore, an uncertain minor positive effect is identified.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-	This site is within 800m of nine bus stops which would enable people employed to restore the site to easily access the site via sustainable transport. A minor rather than a significant negative effect is identified as, although there is potential for the site to generate traffic on local roads during restoration, the restoration of the site is not expected to result in high numbers of lorry movements. Furthermore, this effect is likely to be experienced in the short-term.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+?	The site is adjacent to Wellington Conservation Area, which contains historic buildings and open space, as well as the Grade II listed Bridge House, mile post about 200 yards south of Almshouses, mile post about 1000 yards north-north-east of Bridge House and Almshouses about 300 yards south of Bridge House. The restoration of the former quarry through the disposal of inert waste may enhance the setting of these heritage assets, although this effect is uncertain.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+?	The site is within close proximity (100m) of a settlement and therefore the restoration of the site through the disposal of inert waste could positively contribute to the character of the settlement. A minor positive effect is identified, however, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
8. Move treatment of waste up the waste hierarchy.	-	A minor negative effect is identified for the site as it is located at Wellington Quarry, which is identified in the HMWLP as an appropriate location for the disposal of inert waste. The disposal of waste is judged to have negative effects in terms of moving the treatment of waste up the waste hierarchy.
9. Promote sustainable use of mineral resources.	+	A minor positive effect is identified for this site as the NPPF (2018) promotes the safeguarding of mineral resources from sterilisation by non-mineral development. This site would involve inert waste disposal to restore a quarry, therefore the mineral resources at the site would already have been extracted and could not be sterilised.
10. Reduce Herefordshire's vulnerability to the impacts of climate	+/-	This site is within 800m of nine bus stops which would enable people employed to restore the site to easily access the site via sustainable transport. A minor rather than a significant negative

SA Objective	SA Score	Justification
change as well as its contribution to the problem.		effect is acknowledged, however, given the potential for the site to generate traffic and emissions during the restoration of the site.
11. Promote effective restoration and appropriate after use of sites.	++?	The site is considered an appropriate location for the disposal of inert waste in order to recover the land for beneficial purposes. Therefore, a significant positive effect is identified, however, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?/--?	The site is located immediately adjacent to the River Wye SAC and the River Lugg SSSI at its closest point and species may be disturbed during the restoration of the site. The site is proposed for inert waste disposal following extraction which offers the potential to deliver biodiversity gains in the long term as restoration often involves the creation of species rich wetland or grassland habitats. Therefore, a minor positive and significant negative effect is identified, however, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+?	An uncertain minor positive effect is identified for the site as the disposal of inert waste at the site will restore the quality of the landscape at the former mineral site. However, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	--?	This site is not within a Source Protection Zone, but intersects with Wellington Brook which has a poor ecological status. The site is also directly adjacent to the River Lugg which has a moderate ecological status. The River Lugg is also classified as a SSSI waterbody. Directly adjacent to the south of the site is Moreton Brook which has a bad ecological status. Depositing waste in land has obvious links to the protection of groundwater. An uncertain significant negative effect is identified due to the presence of watercourses on site and the proximity of designated watercourses. However, this effect may be mitigated by the use of a geological barrier and liner, depending on the level of risk to groundwater identified in a Groundwater Risk Assessment.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+	This site is partly within Flood Zone 3, however, the restoration of the site through the disposal of inert waste will help to increase permeable land cover in the county which will contribute towards flood attenuation. Furthermore, the restoration of sites could create new wetland habitat that provides flood storage. A minor positive effect is therefore identified for this SA

SA Objective	SA Score	Justification
		objective.
16. Minimise noise, light, and air pollution.	-?	This site is not within an AQMA but is within 100m of residential areas in the settlements of Wellington and Moreton on Lugg and the disposal of inert waste during the restoration of the site may result in noise pollution, however, this effect is judged to be a minor rather than a significant negative and will be experienced in the short-term.
17. Value, protect and enhance soil quality and resources.	+?	The site is partly comprises (<50%) Grade 1 and Grade 2 agricultural land. The site is proposed as an appropriate location for the disposal of inert waste as part of the restoration of a former mineral site. Section 5 of The Town and Country Planning Act 1990 (as amended) requires mineral planning authorities to ensure that restoration meets the required standard (normally to the same physical characteristics as before). Therefore, a minor positive effect is identified, however, the effect is uncertain, and dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.

W58 Rotherwas Industrial Estate

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	++?	Large scale/strategic waste management facilities may be developed at strategic employment sites. As the site is greater than 20ha, a significant positive effect has been identified as it is assumed that larger sites will employ more people than smaller sites. However, the effect is uncertain as strategic employment sites have a reasonably high level of plot turnover and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	++?	Site W58, due to its size (>20ha), may significantly enhance investment in the waste industry if large scale/strategic waste management facilities were developed at this location. The effect is uncertain for the strategic employment site as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.
3. Protect and improve the health of the people of Herefordshire, and	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already

SA Objective	SA Score	Justification
reduce disparities in health geographically and demographically.		experienced at operational industrial or employment sites. Therefore, an uncertain negligible effect is given for this site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	There is potential for several jobs to be created as part of the development of large scale/strategic waste management facilities thereby helping to reduce employment deprivation in Herefordshire. However, the effect is minor rather than significant as the site is not within an area of high deprivation. The effect is uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	Minor positive effects may be experienced at this site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce transport distances of waste.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0?	The site is adjacent to Lower Bullingham deserted medieval village and the site of Rotherwas House, earthwork remains of formal gardens, and Rotherwas Chapel scheduled monuments, the Grade II* listed Rotherwas Chapel, the Grade II listed picnic acid expense store to the west of the northern magazine section, the barn about 60 yards south of Rotherwas Chapel and the former stable block about 40 yards south of Rotherwas Chapel, and the Rotherwas Park unregistered park and garden. These features may be adversely affected by the development of waste infrastructure. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational strategic employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0?	The site is 122.8ha in size and comprises brownfield land; however, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at the employment site. Therefore, an uncertain negligible effect is expected for this strategic employment site.
8. Move treatment of waste up the waste hierarchy.	+?	Uncertain minor positive effects are identified for this strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.

SA Objective	SA Score	Justification
9. Promote sustainable use of mineral resources.	0?	The site does not intersect either a Preferred Area of Search or a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?	Minor positive effects may be experienced for the strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore uncertain minor positive effects are identified for proposed waste facilities on strategic employment sites.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	The site is located within 75m of the River Wye SAC and SSSI as well as being located within both a Green Infrastructure Corridor and Enhancement Zone. This site also contain areas listed Priority Habitat Inventory and a Local Wildlife Site. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0?	The site is within a Green Infrastructure Corridor and Enhancement Zone as well as an area of high-medium Urban Fringe Landscape Sensitivity. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the landscape beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the site.

SA Objective	SA Score	Justification
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
16. Minimise noise, light, and air pollution.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
17. Value, protect and enhance soil quality and resources.	0?	This site partly comprises (<50%) Grade 2 and Grade 3 agricultural land. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

W59 Westfields Trading Estate

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	++?	Large scale/strategic waste management facilities may be developed at strategic employment sites. As the site is greater than 20ha, a significant positive effect has been identified as it is assumed that larger sites will employ more people than smaller sites. However, the effect is uncertain as strategic employment sites have a reasonably high level of plot turnover and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	++?	Site W59, due to its size (>20ha), may significantly enhance investment in the waste industry if large scale/strategic waste management facilities were developed at this location. The effect is uncertain for the strategic employment site as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.

SA Objective	SA Score	Justification
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites. Therefore, an uncertain negligible effect is given for this site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	There is potential for several jobs to be created as part of the development of large scale/strategic waste management facilities thereby helping to reduce employment deprivation in Herefordshire. However, the effect is minor rather than significant as the site is not within an area of high deprivation. The effect is uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	Minor positive effects may be experienced at this site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce transport distances of waste.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0?	The site is adjacent to Central Area and Widemarsh Common Conservation Areas (which contain historic buildings and open spaces), Moor House unregistered park and garden and the Grade II listed Moor House. These features may be adversely affected by the development of waste infrastructure. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational strategic employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0?	The site is 45.6ha in size and comprises brownfield land; however, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at the employment site. Therefore, an uncertain negligible effect is expected for this strategic employment site.
8. Move treatment of waste up the waste hierarchy.	+?	Uncertain minor positive effects are identified for this strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.

SA Objective	SA Score	Justification
9. Promote sustainable use of mineral resources.	0?	The site does not intersect either a Preferred Area of Search or a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?	Minor positive effects may be experienced for the strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore uncertain minor positive effects are identified for proposed waste facilities on strategic employment sites.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	The site is located within 700m of the River Wye SAC and SSSI as well as being located within a Green Infrastructure Corridor. The site also contains a SINC. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0?	The site is within a Green Infrastructure Corridor. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the landscape beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the site.
15. Reduce the risk of flooding and the resulting detriment to public well-	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial

SA Objective	SA Score	Justification
being, the economy and the environment.		or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
16. Minimise noise, light, and air pollution.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
17. Value, protect and enhance soil quality and resources.	0?	This site is located with an urban setting and does not contain any areas of agricultural land. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

W60 Three Elms Trading Estate

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	Although large scale/strategic waste management facilities may be developed at strategic employment sites, as the site is less than 20ha in size, a minor positive effect has been identified as it is likely to generate fewer employment opportunities than at a larger strategic employment site. The effect is uncertain as strategic employment sites have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+?	The development of new waste management infrastructure at strategic employment sites would contribute towards investment in the waste sector. Overall, a minor rather than a significant positive effect is identified as this site is less than 20ha in size and therefore unlikely to accommodate large scale/strategic waste management facilities. The effect is uncertain for the strategic employment site as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.

SA Objective	SA Score	Justification
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites. Therefore, an uncertain negligible effect is given for this site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	There is potential for a small number of jobs to be created as part of the development of waste management facilities thereby helping to reduce employment deprivation in Herefordshire. The effect is uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	Minor positive effects may be experienced at this site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce transport distances of waste.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0?	The site is not adjacent to and does not contain any designated heritage features. Additionally, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational strategic employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0?	The site is 2.8ha in size and comprises brownfield land; however, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at the employment site. Therefore, an uncertain negligible effect is expected for this strategic employment site.
8. Move treatment of waste up the waste hierarchy.	+?	Uncertain minor positive effects are identified for this strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.
9. Promote sustainable use of mineral resources.	0?	The site does not intersect either a Preferred Area of Search or a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the

SA Objective	SA Score	Justification
		strategic employment sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?	Minor positive effects may be experienced for the strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore uncertain minor positive effects are identified for proposed waste facilities on strategic employment sites.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	The site is located within a Green Infrastructure Corridor. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0?	The site is within a Green Infrastructure Corridor. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the landscape beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the site.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
16. Minimise noise, light, and air pollution.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at

SA Objective	SA Score	Justification
		operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
17. Value, protect and enhance soil quality and resources.	0?	This site is located with an urban setting and does not contain any areas of agricultural land. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

W61 Holmer Road, Hereford

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	Although large scale/strategic waste management facilities may be developed at strategic employment sites, as the site is less than 20ha in size, a minor positive effect has been identified as it is likely to generate fewer employment opportunities than at a larger strategic employment site. The effect is uncertain as strategic employment sites have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+?	The development of new waste management infrastructure at strategic employment sites would contribute towards investment in the waste sector. Overall, a minor rather than a significant positive effect is identified as this site is less than 20ha in size and therefore unlikely to accommodate large scale/strategic waste management facilities. The effect is uncertain for the strategic employment site as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites. Therefore, an uncertain negligible effect is given for this site.

SA Objective	SA Score	Justification
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	There is potential for a small number of jobs to be created as part of the development of waste management facilities thereby helping to reduce employment deprivation in Herefordshire. The effect is uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	Minor positive effects may be experienced at this site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce transport distances of waste.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0?	The site is adjacent to Widemarsh Common Conservation Areas, which contain historic buildings and open space. These features may be adversely affected by the development of waste infrastructure. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational strategic employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0?	The site is 1ha in size and comprises brownfield land; however, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at the employment site. Therefore, an uncertain negligible effect is expected for this strategic employment site.
8. Move treatment of waste up the waste hierarchy.	+?	Uncertain minor positive effects are identified for this strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.
9. Promote sustainable use of mineral resources.	0?	The site does not intersect either a Preferred Area of Search or a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate	+?	Minor positive effects may be experienced for the strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering,

SA Objective	SA Score	Justification
change as well as its contribution to the problem.		manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore uncertain minor positive effects are identified for proposed waste facilities on strategic employment sites.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	The site is located within a Green Infrastructure Corridor. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0?	The site is within a Green Infrastructure Corridor. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the landscape beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the site.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
16. Minimise noise, light, and air pollution.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
17. Value, protect and enhance soil	0?	This site is located with an urban setting and does not contain any areas of agricultural land.

SA Objective	SA Score	Justification
quality and resources.		The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

W62 Leominster Enterprise Park

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	Although large scale/strategic waste management facilities may be developed at strategic employment sites, as the site is less than 20ha in size, a minor positive effect has been identified as it is likely to generate fewer employment opportunities than at a larger strategic employment site. The effect is uncertain as strategic employment sites have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+?	The development of new waste management infrastructure at strategic employment sites would contribute towards investment in the waste sector. Overall, a minor rather than a significant positive effect is identified as this site is less than 20ha in size and therefore unlikely to accommodate large scale/strategic waste management facilities. The effect is uncertain for the strategic employment site as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites. Therefore, an uncertain negligible effect is given for this site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	There is potential for a small number of jobs to be created as part of the development of waste management facilities thereby helping to reduce employment deprivation in Herefordshire. The effect is uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning

SA Objective	SA Score	Justification
		application stage.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	Minor positive effects may be experienced at this site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce transport distances of waste.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0?	The site is not adjacent to and does not contain any designated heritage features. Additionally, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational strategic employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0?	The site is 16.9ha in size and comprises brownfield land; however, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at the employment site. Therefore, an uncertain negligible effect is expected for this strategic employment site.
8. Move treatment of waste up the waste hierarchy.	+?	Uncertain minor positive effects are identified for this strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.
9. Promote sustainable use of mineral resources.	0?	The site does not intersect either a Preferred Area of Search or a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?	Minor positive effects may be experienced for the strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste

SA Objective	SA Score	Justification
		management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore uncertain minor positive effects are identified for proposed waste facilities on strategic employment sites.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	The site is located within 430m of the River Lugg SSSI and is within a Green Infrastructure Enhancement Zone. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0?	The site is within both a Green Infrastructure Enhancement Zone and an area of high-medium Urban Fringe Landscape Sensitivity. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the landscape beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the site.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
16. Minimise noise, light, and air pollution.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
17. Value, protect and enhance soil quality and resources.	0?	This site partly comprises (<50%) Grade 1, Grade 2 and Grade 3 agricultural land. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic

SA Objective	SA Score	Justification
		employment sites.

W63 Southern Avenue, Leominster

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	++?	Large scale/strategic waste management facilities may be developed at strategic employment sites. As the site is greater than 20ha, a significant positive effect has been identified as it is assumed that larger sites will employ more people than smaller sites. However, the effect is uncertain as strategic employment sites have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	++?	Site W63, due to its size (>20ha), may significantly enhance investment in the waste industry if large scale/strategic waste management facilities were developed at this location. The effect is uncertain for the strategic employment site as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites. Therefore, an uncertain negligible effect is given for this site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	++?	There is potential for several jobs to be created as part of the development of large scale/strategic waste management facilities thereby helping to reduce employment deprivation in Herefordshire. Part of the site will also provide employment opportunities in the most deprived areas of Herefordshire. The effect is uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient	+	Minor positive effects may be experienced at this site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research

SA Objective	SA Score	Justification
movement patterns in the County.		industries which will help to reduce transport distances of waste.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0?	The site is adjacent to River Meadows Conservation Area, which contains historic buildings and open space, and the Grade II listed 90, Etnam Street and the White Lion public house. These features may be adversely affected by the development of waste infrastructure. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational strategic employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0?	The site is 33.6ha in size and comprises brownfield land; however, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at the employment site. Therefore, an uncertain negligible effect is expected for this strategic employment site.
8. Move treatment of waste up the waste hierarchy.	+?	Uncertain minor positive effects are identified for this strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.
9. Promote sustainable use of mineral resources.	0?	The site does not intersect either a Preferred Area of Search or a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?	Minor positive effects may be experienced for the strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore uncertain minor positive effects are

SA Objective	SA Score	Justification
		identified for proposed waste facilities on strategic employment sites.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	The site is located within 70m of the River Lugg SSSI and is within a Green Infrastructure Enhancement Zone. The site also contains areas listed as Priority Habitat Inventory. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0?	The site is within a Green Infrastructure Enhancement Zone. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the landscape beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the site.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
16. Minimise noise, light, and air pollution.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
17. Value, protect and enhance soil quality and resources.	0?	This site partly comprises (<50%) Grade 2 and Grade 3 agricultural land. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

W64 Land between Little Marcle Road and Ross Road, Ledbury

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+?	Although large scale/strategic waste management facilities may be developed at strategic employment sites, as the site is less than 20ha in size, a minor positive effect has been identified as it is likely to generate fewer employment opportunities than at a larger strategic employment site. The effect is uncertain as strategic employment sites have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+?	The development of new waste management infrastructure at strategic employment sites would contribute towards investment in the waste sector. Overall, a minor rather than a significant positive effect is identified as this site is less than 20ha in size and therefore unlikely to accommodate large scale/strategic waste management facilities. The effect is uncertain for the strategic employment site as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites. Therefore, an uncertain negligible effect is given for this site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	There is potential for a small number of jobs to be created as part of the development of waste management facilities thereby helping to reduce employment deprivation in Herefordshire. The effect is uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	Minor positive effects may be experienced at this site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce transport distances of waste.
6. Value, protect and enhance the county's historic environment and	0?	The site is adjacent to a Grade II listed milestone that may be adversely affected by the development of waste infrastructure. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment

SA Objective	SA Score	Justification
cultural heritage.		beyond the effects already experienced at operational strategic employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0?	The site is 11.2ha in size and comprises brownfield and greenfield land; however, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at the employment site. Therefore, an uncertain negligible effect is expected for this strategic employment site.
8. Move treatment of waste up the waste hierarchy.	+?	Uncertain minor positive effects are identified for this strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.
9. Promote sustainable use of mineral resources.	0?	The site does not intersect either a Preferred Area of Search or a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?	Minor positive effects may be experienced for the strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore uncertain minor positive effects are identified for proposed waste facilities on strategic employment sites.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	The site is located within both a Green Infrastructure Corridor and Enhancement Zone. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected

SA Objective	SA Score	Justification
		for the strategic employment sites.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0?	The site is within a Green Infrastructure Corridor and Enhancement Zone as well as an area of high-medium Urban Fringe Landscape Sensitivity. The site also contains areas of open space and recreational grounds. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the landscape beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the site.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
16. Minimise noise, light, and air pollution.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
17. Value, protect and enhance soil quality and resources.	0?	This site is entirely comprised of Grade 3 or 3b agricultural land. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

W65 Model Farm, Ross-on-Wye

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment	+?	Although large scale/strategic waste management facilities may be developed at strategic employment sites, as the site is less than 20ha in size, a minor positive effect has been

SA Objective	SA Score	Justification
opportunities in the minerals and waste sectors.		identified as it is likely to generate fewer employment opportunities than at a larger strategic employment site. The effect is uncertain as strategic employment sites have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+?	The development of new waste management infrastructure at strategic employment sites would contribute towards investment in the waste sector. Overall, a minor rather than a significant positive effect is identified as this site is less than 20ha in size and therefore unlikely to accommodate large scale/strategic waste management facilities. The effect is uncertain for the strategic employment site as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites. Therefore, an uncertain negligible effect is given for this site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	There is potential for a small number of jobs to be created as part of the development of waste management facilities thereby helping to reduce employment deprivation in Herefordshire. The effect is uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	Minor positive effects may be experienced at this site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce transport distances of waste.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0?	The site is adjacent to a Grade II listed milestone that may be adversely affected by the development of waste infrastructure. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational strategic employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

SA Objective	SA Score	Justification
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0?	The site is 10.4ha in size and comprises brownfield and agricultural land; however, under the assumption that any development would be undertaken on brownfield land, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at the employment site. Therefore, an uncertain negligible effect is expected for this strategic employment site.
8. Move treatment of waste up the waste hierarchy.	+?	Uncertain minor positive effects are identified for this strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.
9. Promote sustainable use of mineral resources.	0?	The site does not intersect either a Preferred Area of Search or a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?	Minor positive effects may be experienced for the strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore uncertain minor positive effects are identified for proposed waste facilities on strategic employment sites.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	The site is located within both a Green Infrastructure Enhancement Zone. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

SA Objective	SA Score	Justification
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0?	The site is within both a Green Infrastructure Enhancement Zone and an area of high-medium Urban Fringe Landscape Sensitivity. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the landscape beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the site.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
16. Minimise noise, light, and air pollution.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
17. Value, protect and enhance soil quality and resources.	0?	This site comprises mainly (>50%) Grade 2 agricultural land. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

W66 Moreton Business Park, Moretonon- Lugg

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+++	Large scale/strategic waste management facilities may be developed at strategic employment sites. As the site is greater than 20ha, a significant positive effect has been identified. However, the effect is uncertain as strategic employment sites have a reasonably high level of plot turnover and will depend upon the type and scale of the waste infrastructure development at

SA Objective	SA Score	Justification
		the strategic employment site, which would not be known until the planning application stage.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	++?	Site W66, due to its size (>20ha), may significantly enhance investment in the waste industry if large scale/strategic waste management facilities were developed at this location. The effect is uncertain for the strategic employment site as these locations have a reasonably high level of plot turnover and will also depend upon the type and scale of the waste infrastructure development at the strategic employment sites, which would not be known until the planning application stage.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites. Therefore, an uncertain negligible effect is given for this site.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?	There is potential for several jobs to be created as part of the development of large scale/strategic waste management facilities thereby helping to reduce employment deprivation in Herefordshire. However, the effect is minor rather than significant as the site is not within an area of high deprivation. The effect is uncertain and will depend upon the type and scale of the waste infrastructure development at the strategic employment site, which would not be known until the planning application stage.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	Minor positive effects may be experienced at this site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce transport distances of waste.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0?	The site is adjacent to the Grade II listed Almshouses about 300 yards south of Bridge House and mile post about 200 yards south of Almshouses. These features may be adversely affected by the development of waste infrastructure. However, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational strategic employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0?	The site is 61ha in size and comprises brownfield and greenfield land; however, the development of new waste facilities at strategic employment sites is not expected to adversely impact on the character and built quality beyond the effects already experienced at the

SA Objective	SA Score	Justification
		employment site. Therefore, an uncertain negligible effect is expected for this strategic employment site.
8. Move treatment of waste up the waste hierarchy.	+?	Uncertain minor positive effects are identified for this strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.
9. Promote sustainable use of mineral resources.	0?	The site intersects both a Preferred Area of Search and a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact mineral resources beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?	Minor positive effects may be experienced for the strategic employment site as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.
11. Promote effective restoration and appropriate after use of sites.	+?	The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore uncertain minor positive effects are identified for proposed waste facilities on strategic employment sites.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	0?	The site is located within 515m of the River Wye SAC and River Lugg SSSI. This site also contains a Local Wildlife Site and areas listed Priority Habitat Inventory. The development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity or geodiversity beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural	0?	A negligible effect is identified as the site does not contain an area of open space, park or garden; is not in close proximity to an AONB; is not within an area classified as Urban Fringe; and is not within a Green Infrastructure Corridor or a Green Infrastructure enhancement Zone.

SA Objective	SA Score	Justification
areas and open spaces.		
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on the water environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the site.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on flood risk beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
16. Minimise noise, light, and air pollution.	0?	The development of new waste facilities at strategic employment sites is not expected to adversely impact on air and noise pollution beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for this strategic employment site.
17. Value, protect and enhance soil quality and resources.	0?	This site partly comprises (<50%) Grade 2 and Grade 3 agricultural land. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the soil environment beyond the effects already experienced at operational industrial or employment sites. Therefore, uncertain negligible effects are expected for the strategic employment sites.

Appendix 8

Detailed SA matrices for the Draft Herefordshire Minerals and Waste Local Plan policies

Vision

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that strengthen the local economy which will generate employment opportunities in Herefordshire.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that strengthen the local economy, which in turn will attract inward investment.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that support the county's communities which is assumed to include minimising adverse effects from development such as noise, air, odour, and light pollution, and providing areas which can be used for recreation as part of the development or restoration of sites.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that strengthen the local economy which will provide employment opportunities for local people which may reduce employment deprivation.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-	<p>A minor positive effects is expected for this SA objective as the Vision supports a circular economy and the waste hierarchy which will reduce the transportation of waste being sent to landfill for disposal.</p> <p>A minor negative effect is identified for this objective as the Vision does not promote the sustainable transportation of minerals and waste for example via rail.</p>
6. Value, protect and enhance the county's historic environment and cultural heritage.	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that protect and enhance heritage and cultural assets.
7. Value, protect and enhance the character and built quality of	+	A minor positive effect is identified for this objective as the Vision seeks to provide a sustainable supply of minerals whilst supporting the county's communities and protecting and enhancing

SA Objective	SA Score	Justification
settlements and neighbourhoods.		environmental assets. This is likely to include the protection of the character and built quality of settlements from the adverse effects of mining and waste treatment. In addition, the Vision supports high quality site reclamation, which could enhance the character and quality of settlements and neighbourhoods through the provision of open space or green infrastructure.
8. Move treatment of waste up the waste hierarchy.	++	A significant positive effect is identified for this objective as one of the main aims of the Vision is to achieve sustainable provision of waste management by supporting the circular economy.
9. Promote sustainable use of mineral resources.	++	A significant positive effect is identified for this objective as one of the main aims of the Vision is to achieve sustainable provision of minerals through the efficient use and protection of mineral resources.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+	A minor positive effect is identified for this objective as the Vision aims to achieve sustainable provision by supporting the circular economy which will reduce energy use, transportation of waste and greenhouse gas emissions by diverting waste from landfills. The Vision also seeks to optimise resilience to climate change by taking advantage of the opportunities presented by minerals and waste management development, including the use of minerals sites for flood and water management opportunities, and waste management sites for renewable energy generation.
11. Promote effective restoration and appropriate after use of sites.	+	The previous SA recommended that the Vision include reference to the restoration of sites to a high standard. The Vision has been subsequently amended to seek a strategic approach to reclamation. A minor positive effect is identified for this objective as the Vision seeks to ensure that there is a strategic approach taken to achieving high quality reclamation that provides site betterment, including green infrastructure, public open space and recreation.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that protect and enhance environmental assets which is assumed to include biodiversity and geodiversity. The Vision also seeks to achieve high quality reclamation and betterment of sites, including the establishment of green infrastructure and public open space which has benefits for biodiversity.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that protect and enhance environmental assets which is assumed to include AONBs, open spaces, parks and gardens, and their settings. The

SA Objective	SA Score	Justification
areas and open spaces.		Vision also seeks to achieve high quality reclamation and betterment of sites, including the establishment of green infrastructure and public open space which will restore landscape quality following the working of a mineral site or the operation of a waste facility. Using resources efficiently also reduces the need for the extraction of primary minerals to meet demand, and the impact these sites can have on the landscape.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that protect and enhance environmental assets which is assumed to include ground and surface waters. Furthermore, the supporting text states that minerals developments can enable resilience through water management opportunities.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that protect and enhance environmental assets which is assumed to include the water environment and areas at risk of flooding. The Vision also seeks to optimise resilience to climate change by taking advantage of the opportunities presented by minerals development, including the use of minerals sites for flood and water management opportunities.
16. Minimise noise, light, and air pollution.	+	A minor positive effect is identified for this objective as the Vision aims to achieve sustainable provision of minerals and waste management by supporting the circular economy and the waste hierarchy which will improve air quality through reduced transportation and incineration of waste. It also promotes developments that support the county's communities which is assumed to include minimising adverse effects on those communities from noise, light and air pollution. Furthermore, the supporting text states that waste development can enable resilience through renewable energy generation and improved food and agricultural waste management measures that provide the opportunity to sequester carbon.
17. Value, protect and enhance soil quality and resources.	+	A minor positive effect is expected for this objective as the Vision supports the sustainable provision of minerals and waste management that protect and enhance environmental assets which is assumed to include Best and Most Versatile agricultural land.

Strategic Objectives

Social objectives

SA Objective	SA Score – Social Objectives				Justification
	1	2	3	4	
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	0	+	+	+	<p>Objective 1 is unlikely to enhance the provision of employment opportunities in the minerals and waste sectors and therefore, a negligible effect is expected for this SA objective.</p> <p>Objective 2 will have a minor positive effect on this SA objective as it supports the efficient use of minerals in new developments which will generate employment opportunities in the recycled and secondary aggregates industry.</p> <p>Objective 3 will have a minor positive effect on this objective as it seeks to safeguard mineral and waste resources which will support the development and growth of the minerals and waste economy in Herefordshire and generate employment opportunities for local people.</p> <p>Objective 4 will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will generate employment opportunities in waste management.</p>
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	0	+	+	+	<p>Objective 1 is unlikely to encourage investment in the local economy and therefore, a negligible effect is expected for this SA objective.</p> <p>Objective 2 supports the efficient use of minerals in new developments including using recycled and secondary aggregates which can benefit both the minerals and waste industries by slowing the rate of consumption of raw primary resources and reducing levels of waste disposal by recycling and reusing materials which would otherwise be considered to be waste.</p> <p>Objective 3 will have a minor positive effect on this objective as it seeks to safeguard mineral and waste resources which will</p>

SA Objective	SA Score – Social Objectives				Justification
					<p>encourage investment in these sectors.</p> <p>Objective 4 will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will support the waste management industry.</p>
<p>3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.</p>	++	+	+?/-?	+	<p>Objective 1 will have a significant positive effect on this SA objective as it supports minerals and waste development that make an appropriate contribution to improving health, well-being and quality of life of residents, through best practice operations, open space provision, educational and cultural information and green infrastructure.</p> <p>Objective 2 will have a minor positive effect as it supports the long-term conservation of primary minerals and the promotion of the efficient use of minerals in new developments which may reduce adverse impacts on health and amenity incurred from the development of new mineral sites.</p> <p>Objective 3 will have a mixed effect (minor positive/minor negative) as it is possible that, by safeguarding mineral and waste resources for development, the effects associated with these operations (e.g. dust, noise, odour, vibration and traffic levels) may have a negative impact on health and wellbeing, however, it is also possible that such developments may improve health and amenity through the delivery of green infrastructure, enhanced public rights of way, or improved access to recreation as part of the development and restoration of sites.</p> <p>Objective 4 will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will divert waste from landfills and reduce waste management transportation which will reduce negative effects such as air and noise pollution, and emissions thereby improving the health and well-being of residents in Herefordshire.</p>
<p>4. Reduce poverty and social inclusion</p>	0	+	+	+	<p>Objective 1 is unlikely to provide opportunities for local people to</p>

SA Objective	SA Score – Social Objectives				Justification
<p>by closing the gap between the most deprived areas in the county and the rest of the county.</p>					<p>access employment and skills in the minerals and waste sectors and therefore, a negligible effect is expected for this SA objective.</p> <p>Objective 2 will have a minor positive effect on this SA objective as it supports the efficient use of minerals in new developments which will generate employment opportunities in the recycled and secondary aggregates industry, thereby reducing employment deprivation.</p> <p>Objective 3 promotes the safeguarding of minerals and waste resources in Herefordshire which will support investment in the local economy thereby generating employment opportunities for local people which could reduce employment deprivation in the county.</p> <p>Objective 4 will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will generate employment opportunities in waste management.</p>
<p>5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.</p>	+?	+	+/-	+	<p>Objective 1 supports minerals and waste developments that make an appropriate contribution to improving the health and well-being of residents through best practice operations which may include the use of alternatives to road transport and the associated benefits to air quality. However, this minor positive effect is uncertain.</p> <p>Objective 2 will have a minor positive effect on this SA objective as it supports the long-term conservation of primary minerals, and the efficient use of minerals in new development including using recycled and secondary aggregates. This will reduce road haulage activities if the recovered materials are sourced locally, thereby reducing road congestion in the County.</p> <p>Objective 3 will have a mixed effect (minor positive/minor negative) as it seeks to safeguard mineral/waste resources and their associated transport infrastructure including railheads which can facilitate the sustainable transport of minerals, however, it is also likely that materials and waste will continue to be predominantly transported by road.</p>

SA Objective	SA Score – Social Objectives				Justification
					Objective 4 will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will reduce transportation of waste.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+	+	+/-?	+	<p>Objective 1 supports minerals and waste developments that make an appropriate contribution to improving the health and well-being of residents through open space provision and green infrastructure which can conserve historic settings.</p> <p>Objective 2 will have a minor positive effect as it supports the long-term conservation of primary minerals and the promotion of the efficient use of minerals in new developments which may reduce adverse impacts on the historic environment incurred from the development of new mineral sites.</p> <p>Objective 3 will have a mixed effect (minor positive/minor negative) as safeguarding mineral and waste resources may lead to more mineral extraction activities and waste operations that could have an adverse impact on the historic environment, although this is uncertain until the location, scale and design of the developments are known. Positive effects may be achieved in the longer term through the restoration of sites to open space which can conserve historic settings.</p> <p>Objective 4 promotes a circular economy which supports the reuse and repair of buildings of historic value and the restoration of land which may conserve historic settings.</p>
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+	+	+/-?	+	<p>Objective 1 supports minerals and waste developments that make an appropriate contribution to improving the health and well-being of residents through open space provision and green infrastructure which can enhance the character and built quality of settlements and neighbourhoods.</p> <p>Objective 2 will have a minor positive effect as it supports the long-term conservation of primary minerals and the promotion of the efficient use of minerals in new developments which may reduce adverse impacts on the character and built quality of settlements</p>

SA Objective	SA Score – Social Objectives				Justification
					<p>incurred from the development of new mineral sites.</p> <p>Objective 3 will have a mixed effect (minor positive/minor negative) as safeguarding mineral and waste resources may lead to more mineral extraction activities and waste operations that could have an adverse impact on the character of settlements, although this is uncertain until the location, scale and design of the developments are known. Positive effects may be achieved in the longer term through the restoration of sites to open space which may enhance the built quality and character of settlements.</p> <p>Objective 4 promotes a circular economy which supports the reuse and repair of buildings of historic value and the restoration of land which may enhance the character and built quality of settlements.</p>
8. Move treatment of waste up the waste hierarchy.	0	+	0	++	<p>Objectives 1 and 3 are not likely to have an effect on moving the treatment of waste up the waste hierarchy and therefore, negligible effects are expected for this SA objective.</p> <p>Objective 2 will have a minor positive effect as it supports the conservation of primary minerals through the provision of sustainable alternatives and the efficient use of minerals which support the waste hierarchy.</p> <p>Objective 4 will have a significant positive effect as it directly relates to this SA objective.</p>
9. Promote sustainable use of mineral resources.	0	++	++	++	<p>Objective 1 is not likely to have an effect on promoting the sustainable use of mineral resources and therefore, a negligible effect is expected for this SA objective.</p> <p>Objective 2 will have a significant positive effect on this SA objective as it prioritises the long-term conservation of primary minerals, the effective use of mineral reserves and the efficient use of minerals in new developments.</p> <p>Objective 3 will have a significant positive effect on this SA objective as it seeks to safeguard mineral resources within Herefordshire.</p> <p>Objective 4 will have a significant positive effect on promoting a</p>

SA Objective	SA Score – Social Objectives				Justification
					circular economy as it supports resource efficiency including the use of recycled and secondary aggregates.
<p>10. Reduce Herefordshire’s vulnerability to the impacts of climate change as well as its contribution to the problem.</p>	+?	+	+/-	+	<p>Objective 1 supports minerals and waste developments that make an appropriate contribution to improving the health and well-being of residents through best practice operations which may include the sustainable transport of waste and materials which would reduce greenhouse gas emissions. Open space and green infrastructure provision could also attenuate flooding thereby providing resilience to climate change. However, this minor positive effect is uncertain.</p> <p>Objective 2 will have a minor positive effect on this SA objective as it supports the long-term conservation of primary minerals and the efficient use of minerals in new developments including using recycled and secondary aggregates, which will reduce energy consumption and road haulage activities if the recovered materials are sourced locally thereby reducing transport emissions.</p> <p>Objective 3 will have a mixed effect (minor positive/minor negative) as it seeks to safeguard mineral/waste resources which will ensure a steady and adequate supply of minerals in Herefordshire, thereby reducing the need to import minerals, and it will ensure that the County remains reasonably self-sufficient in managing the waste it produces which will reduce transport distances of waste. However, the operation of these developments may increase the proportion of waste and minerals transported by road resulting in increased emissions from lorries, particularly HGVs.</p> <p>Objective 4 will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will reduce energy use and greenhouse gas emissions associated with the transportation of waste.</p>
<p>11. Promote effective restoration and appropriate after use of sites.</p>	+	0	0	0	<p>Objective 1 will have a minor positive effect on this SA objective as it supports minerals and waste developments which make an appropriate contribution to improving the health and well-being of residents through the provision of open space and green infrastructure which may be delivered during the restoration of</p>

SA Objective	SA Score – Social Objectives				Justification
					<p>sites.</p> <p>Objectives 2, 3 and 4 are unlikely to have an effect on promoting effective restoration of sites; therefore negligible effects are identified for these objectives.</p>
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+	+	+	+	<p>Objective 1 will have a minor positive effect on this SA objective as it supports minerals and waste developments which make an appropriate contribution to improving the health and well-being of residents through the provision of open space and green infrastructure which will provide net gains for biodiversity.</p> <p>Objective 3 will have a minor positive effect as it seeks to safeguard mineral and waste resources. Through safeguarding, geological formations may be preserved and in some instances created, and this should contribute to maintaining and enhancing geodiversity.</p> <p>Objectives 2 and 4 seek to conserve primary minerals and promote the efficient use of mineral reserves and a more circular economy which will reduce the rate of extraction of natural resources and any associated impacts on biodiversity and geodiversity.</p>
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+	+	+/-?	+	<p>Objective 1 will have a minor positive effect on this SA objective as it supports minerals and waste developments which make an appropriate contribution to improving the health and well-being of residents through the provision of open space and green infrastructure which will enhance and restore the landscape quality of Herefordshire. The objective also seeks to deliver strategic landscape scale site reclamation.</p> <p>Objective 2 will have a minor positive effect as it supports the long-term conservation of primary minerals and the promotion of the efficient use of minerals in new developments which may reduce adverse impacts on the quality of the landscape incurred from the development of new mineral sites.</p> <p>Objective 3 seeks to safeguard mineral and waste resources which, depending on the location/scale/design of the development, may have a negative effect on landscape quality. However, it is also</p>

SA Objective	SA Score – Social Objectives				Justification
					<p>possible that mineral and waste developments may improve the landscape through the delivery of green infrastructure as part of the development or restoration of the site.</p> <p>Objective 4 will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will reduce the number of landfills required which may protect the character and quality of Herefordshire’s landscapes.</p>
<p>14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.</p>	+?	+	-?	+	<p>Objective 1 will have a minor positive effect on this SA objective as it supports minerals and waste developments which make an appropriate contribution to improving the health and well-being of residents through best practice operations which may include water pollution control measures and measures to minimise water usage. However, this positive effect is uncertain.</p> <p>Objective 2 will have a minor positive effect as it supports the long-term conservation of primary minerals which will reduce the need for mineral extraction and limit any impacts on the flow and quality of surface and groundwater.</p> <p>Objective 3 seeks to safeguard mineral and waste resources which, depending on the location/scale/design of the development, may have a negative effect on the quality and quantity of water resources including groundwater aquifers (e.g. from contamination from leaching of chemical and oil spillages and leachate break-out, release of sediment, diversion of watercourses, etc.).</p> <p>Objective 4 will have a minor positive effect as it supports a reduction in waste production and the recovery of waste materials (including water) and residuals as a valuable resource.</p>
<p>15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.</p>	+?	+	+/-?	0	<p>Objective 1 will have a minor positive effect on this SA objective as it supports minerals and waste developments which make an appropriate contribution to improving the health and well-being of residents through best practice operations which may include the provision of SuDS onsite, and through the provision of open space</p>

SA Objective	SA Score – Social Objectives				Justification
					<p>which will increase the area of permeable surfaces thereby reducing flood risk. However, this positive effect is uncertain.</p> <p>Objective 2 will have a minor positive effect as it supports the long-term conservation of primary minerals, the effective use of mineral reserves, and the efficient use of minerals in new developments which will reduce the need for mineral extraction thereby limiting any increase in flood risk that may occur as a result of extraction.</p> <p>Objective 3 seeks to safeguard mineral and waste resources, which depending on the type of the operation, may increase the risk of flooding (e.g. landfills/sites used for waste management of hazardous materials are suitable in Flood Zones 1, 2 and potentially 3a, waste treatment and mineral working/processing facilities are suitable in all Flood Zones excluding 3b, and sand and gravel working is suitable in all Flood Zones). The restoration of sites provides opportunities for flood water storage and management.</p> <p>Objective 4 is unlikely to reduce the risk of flooding and therefore will have a negligible effect on this SA objective.</p>
16. Minimise noise, light, and air pollution.	+?	+	-?	+	<p>Objective 1 will have a minor positive effect on this SA objective as it supports minerals and waste developments which make an appropriate contribution to improving the health and well-being of residents through best practice operations which may include the control of emissions from the developments including dust, noise, and air pollution. However, this minor positive effect is uncertain.</p> <p>Objective 2 seeks to conserve primary minerals and promote the efficient use of mineral reserves which will reduce the rate of extraction of natural resources and any associated impacts such as dust, noise, light and air pollution. Furthermore, the objective supports the efficient use of minerals in new developments including using recycled and secondary aggregates, which will reduce road haulage activities if the recovered materials are sourced locally thereby reducing transport emissions. A minor positive effect is identified.</p> <p>Objective 3 will have a minor negative effect as it is possible that,</p>

SA Objective	SA Score – Social Objectives				Justification
					<p>by safeguarding mineral and waste resources for development, there may be negative effects associated with these operations such as noise, light, odour, and air pollution. The level of these effects will depend on the location, scale and design of the developments.</p> <p>Objective 4 will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will reduce greenhouse gas emissions (for example from the transportation of waste) thereby benefiting air quality.</p>
17. Value, protect and enhance soil quality and resources.	+	+	+?/-?	+	<p>Objective 1 will have a minor positive effect on this SA objective as it supports minerals and waste developments which make an appropriate contribution to improving the health and well-being of residents through the provision of green infrastructure which can improve the quality and stability of soil.</p> <p>Objective 2 will have a minor positive effect on this objective as it reduces extraction of primary raw materials which may have an adverse impact on the soil environment.</p> <p>Objective 3 will have a mixed effect as it seeks to safeguard waste resources which, depending on the location of the development, may be located on previously developed sites or on greenfield locations. Safeguarding mineral resources may lead to more mineral extraction activities, increasing the potential impact on soils (e.g. removal of soil, contamination from leaching of chemical and oil spillages and leachate break-out). Positive effects may be experienced through site restoration which can lead to the enhancement of soil quality.</p> <p>Objective 4 will have a minor positive effect on soil quality as it avoids the need for new landfilling areas and supports composting/anaerobic digestion which will enhance soil quality.</p>

Economic objectives

SA Objective	SA Score – Economic Objectives				Justification
	5	6	7	8	
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	+	+	0	<p>Objective 5 will have a minor positive effect on this objective as it seeks to optimise the contribution that mineral working and waste makes to the Herefordshire economy whilst protecting places and businesses from adverse effects. This has positive benefits for creating new employment in the minerals and waste sectors and also maintaining jobs elsewhere.</p> <p>Objective 6 will have a minor positive effect on this objective as it seeks to ensure there is a steady and adequate supply of minerals to meet Herefordshire’s needs which will support the development and growth of the minerals economy in the county and generate employment opportunities for local people.</p> <p>Objective 7 will have a minor positive effect as it supports the development of Herefordshire’s waste management infrastructure to achieve self-sufficiency, and to contribute to the county’s economic growth, innovation development and energy demands, all of which is likely to generate jobs in the waste management industry.</p> <p>Objective 8 is unlikely to provide employment opportunities in the minerals and waste sectors and therefore, a negligible effect is expected for this SA objective.</p>
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	++	++	++	+	<p>Objective 5 will have a significant positive effect as it seeks to optimise the contribution that mineral working and waste makes to the Herefordshire economy whilst protecting places and businesses from adverse effects.</p> <p>Objective 6 will have a significant positive effect as it seeks to ensure there is a steady and adequate supply of minerals to contribute to the county’s economic growth.</p> <p>Objective 7 will have a significant positive effect as it supports the development of the waste management industry to enable</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>Herefordshire to be self-sufficient and contribute to economic growth.</p> <p>Objective 8 seeks to locate new minerals and waste developments in close proximity to suitable transport networks which will reduce transport costs and encourage investment in the minerals and waste sectors. A minor positive effect is identified for this SA objective.</p>
<p>3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.</p>	+/-?	+?/-?	+?/-?	+?	<p>Objective 5 will have a mixed effect (minor positive/uncertain minor negative) as it is possible that by optimising the contribution that mineral working and waste management makes to the economy there may be negative effects on health in terms of dust, noise, odour, vibration and traffic levels from works associated with sites, although this will be dependent on proximity to nearby populated areas. However, the policy also seeks to ensure that economic benefits are balanced with the effective protection of people, which is assumed to encompass health.</p> <p>Objective 6 will have a mixed effect (uncertain minor positive/uncertain minor negative) as it is possible that, by producing a steady and adequate supply of minerals, the effects associated with mining and quarrying (e.g. dust, noise, odour, vibration and traffic levels) may have a negative impact on health and wellbeing, although this will be dependent on the proximity of such sites to populated areas. However, it is also possible that such developments may improve health and amenity through the delivery of green infrastructure, enhanced public rights of way, or improved access to recreation as part of the development and restoration of sites.</p> <p>Objective 7 will have a mixed effect (uncertain minor positive/uncertain minor negative) as it supports the adequate provision of waste management infrastructure to enable Herefordshire to achieve self-sufficiency which may have adverse effects on health and wellbeing from odour, noise, vermin, or traffic levels, and on the amenity of the surrounding area, although this is dependent on the proximity of new sites to populated areas.</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>Treating and managing waste close to source would also reduce the transportation of wastes over large distances and thus any transboundary effects, including noise and air pollution from transport. Effects are uncertain until the location, scale and design of the waste management facility is known.</p> <p>Objective 8 supports the use of alternatives to road transport and steers new development to locations that are served by suitable transport networks which will reduce adverse effects on health and wellbeing such as noise and air pollution. Although this is uncertain until the location, scale and design of the developments are known.</p>
<p>4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.</p>	+	+	+	0	<p>Objective 5 seeks to optimise the contribution that mineral working and waste management has to Herefordshire’s economy, and so there are likely to be more employment opportunities realised in these industries, thus reducing employment deprivation in the county. Moreover, the objective seeks to balance this with the protection of places and existing businesses from adverse impacts, which will ensure that people’s jobs and livelihoods will be safeguarded.</p> <p>Objective 6 seeks to ensure there is a steady and adequate supply of minerals which will support investment in the local economy and construction industry, thereby generating employment opportunities for local people which could reduce employment deprivation in the county. A minor positive effect is identified for this SA objective.</p> <p>Objective 7 will have a minor positive effect as it supports the adequate provision of waste management infrastructure to enable Herefordshire to be self-sufficient in its management, which is likely to generate employment opportunities in the waste management industry.</p> <p>Objective 8 is unlikely to provide opportunities for local people to access employment and skills and therefore, a negligible effect is identified for this objective.</p>

SA Objective	SA Score – Economic Objectives				Justification
<p>5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.</p>	+/-?	+/-?	+/-?	++	<p>Objective 5 seeks to optimise the contribution that mineral working and waste management has to Herefordshire's economy which is likely to result in increased transportation and potentially associated negative effects. However, the objective also seeks to ensure that economic benefits are balanced with the protection of people which is assumed to include protection from the effects of congestion, noise and air pollution of mineral and waste traffic. A mixed effect is therefore identified for this SA objective.</p> <p>Objective 6 encourages the production of a steady and adequate supply of minerals in Herefordshire which will reduce the need for importing minerals, however, the transport of minerals may utilise either sustainable transport modes (e.g. rail) or the road network which will result in mixed effects (uncertain minor positive/uncertain minor negative) for this objective.</p> <p>Objective 7 will have a mixed effect (minor positive/uncertain minor negative) as it supports the adequate provision of waste management infrastructure to enable self-sufficiency in management which will reduce the transportation of waste further afield for processing, however, there may be increased traffic levels locally from the operation of these waste management facilities.</p> <p>Objective 8 will have a significant positive effect as it seeks to reduce the need to travel and lessen the harmful impacts from traffic growth, promote the use of alternatives to road transport and ensure that new development is served by sustainable transport networks.</p>
<p>6. Value, protect and enhance the county's historic environment and cultural heritage.</p>	+/-?	+?/-?	+?	+?	<p>Objective 5 seeks to optimise the contribution that mineral working and waste management makes to the Herefordshire economy. This would result in increased mineral extraction and waste management practices, which could adversely affect the historic environment, although this would be dependent on the size and proximity of such practices to potential receptors. However, the objective seeks to balance the economic benefits with the protection of places which will have positive effects on this objective. A mixed effect is</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>identified for this SA objective.</p> <p>Objective 6 will have a mixed effect (uncertain minor positive/uncertain minor negative) as ensuring a steady and adequate supply of minerals may lead to more mineral extraction activities that could have an adverse impact on the historic environment, although this is uncertain until the location, scale and design of the developments are known. Positive effects may be achieved as a landbank of minerals in the county may help to ensure that heritage details are retained throughout the built environment.</p> <p>Objective 7 will have a minor positive effect as it supports the adequate provision of waste management infrastructure which may be located away from heritage assets or sensitive built environments.</p> <p>Objective 8 supports the use of alternatives to road transport and steers new development to locations that are served by suitable transport networks which will reduce adverse effects on the setting, fabric and structure of the built environment/heritage assets throughout the county. Although this is uncertain until the location, scale and design of the developments are known.</p>
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+/-?	+?/-?	+?	+?	<p>Objective 5 seeks to optimise the contribution that mineral working and waste management makes to the Herefordshire economy. This would result in increased mineral extraction and waste management practices, which could adversely affect the character and built quality of settlements, although this would be dependent on the size and proximity of such practices to potential receptors. However, the objective seeks to balance the economic benefits with the protection of people and places from adverse effects, which will have positive effects on this objective. A mixed effect is identified for this SA objective.</p> <p>Objective 6 will have a mixed effect (uncertain minor positive/uncertain minor negative) as ensuring a steady and sustainable supply of minerals may lead to more mineral extraction</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>activities that could have an adverse impact on settlement character, although this is uncertain until the location, scale and design of the developments are known.</p> <p>Objective 7 will have a minor positive effect as it supports the adequate provision of waste management infrastructure which may be located away from heritage assets or sensitive built environments.</p> <p>Objective 8 supports the use of alternatives to road transport and steers new development to locations that are served by suitable transport networks which will reduce adverse effects the character and built quality of settlements throughout the county. Although this is uncertain until the location, scale and design of the developments are known.</p>
8. Move treatment of waste up the waste hierarchy.	++	0	++	0	<p>Objective 5 seeks to optimise the contribution that waste management makes to Herefordshire’s economy, which will provide opportunities to develop and implement sustainable waste practices across the county. A significant positive effect is identified for this SA objective.</p> <p>Objectives 6 and 8 are not likely to have an effect on moving the treatment of waste up the waste hierarchy and therefore, negligible effects are expected for this SA objective.</p> <p>Objective 7 supports the adequate provision of waste management infrastructure in Herefordshire in order for the county to achieve self-sufficiency in waste management, which implies that modern and sustainable techniques for managing waste would be developed and employed, all of which will provide opportunities to move treatment of waste up the waste hierarchy. A significant positive effect is identified for this objective.</p>
9. Promote sustainable use of mineral resources.	+/-	+	+	0	<p>Objective 5 seeks to optimise the contribution that mineral working makes to Herefordshire’s economy. This will have a minor negative effect given that more mineral extraction will be required to achieve</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>this. However, the objective seeks to ensure that benefits to the economy are balanced with the effective protection of places from adverse effects, which implies that mineral extraction is to occur at sensible and responsible levels. A mixed effect is identified for this SA objective.</p> <p>Objective 6 seeks to ensure that there is a steady and sustainable supply of minerals present within Herefordshire, which will ensure that resources are managed and worked carefully. A minor positive effect is identified for this SA objective.</p> <p>Objective 7 will have a minor positive effect as delivering new waste management infrastructure to achieve self-sufficiency will encourage a shift to a more circular economy, which will have positive implications for optimising the use and re-use of aggregates before new primary materials are needed.</p> <p>Objective 8 is not likely to promote the sustainable use of mineral resources and therefore negligible effects are identified for this SA objective.</p>
<p>10. Reduce Herefordshire’s vulnerability to the impacts of climate change as well as its contribution to the problem.</p>	+/-?	+/-?	+/-?	+	<p>Objective 5 seeks to optimise the contribution that mineral working and waste management makes to Hereford’s economy. Whilst this is likely to increase the movement of traffic associated with minerals and waste development, the objective also seeks to balance this with the protection of people, which is assumed to include from increased emissions from transport. A mixed effect is therefore identified for this SA objective.</p> <p>Objective 6 will have a mixed effect (minor positive/uncertain minor negative) as it seeks to ensure a steady and adequate supply of minerals in Herefordshire which will reduce the need to import minerals. However, the operation of mineral developments may increase the proportion of minerals transported by road resulting in increased emissions from lorries, particularly HGVs.</p> <p>Objective 7 will have a mixed effect (minor positive/uncertain minor negative) as it seeks to ensure that there is adequate provision for</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>waste management infrastructure to ensure that the County remains self-sufficient in managing the waste it produces, and this will reduce transport distances of waste. However, the operation of these developments may increase the proportion of waste transported by road resulting in increased emissions from lorries, particularly HGVs locally. Effects are uncertain until the location, scale and design of the waste management facility is known.</p> <p>Objective 8 will have a minor positive effect as it supports the use of alternatives to road transport and steers new development to locations that are served by suitable transport networks which will reduce greenhouse gas emissions.</p>
11. Promote effective restoration and appropriate after use of sites.	+?	+?	0	0	<p>Optimising the contribution that mineral working and waste management has to the local economy (objective 5) and planning for a steady supply of minerals (objective 6) provides opportunities for sites to be restored to appropriate after uses following extraction of minerals or the operation of waste facilities, however, this is not prescribed in the objectives and so uncertain minor positive effects are identified for this SA objective.</p> <p>Objectives 7 and 8 are not likely to have an effect on promoting restoration of sites and therefore, negligible effects are identified for this SA objective.</p>
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?/-?	+?/-?	+?/-?	+?	<p>Objective 5 will have a mixed effect (uncertain minor positive/uncertain minor negative). Economic benefits will only be realised through the working of sites which may be in close proximity to nature conservation areas. However, sites may improve biodiversity through the delivery of green infrastructure as part of the development or restoration of the site. Furthermore, the extraction of minerals is likely to alter the geodiversity of sites, although it is also possible that new geological exposures may also be revealed. The level of these effects will depend on the location, scale and design of the developments.</p> <p>Objective 6 will have a mixed effect (uncertain minor</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>positive/uncertain minor negative) as it is possible that by producing a steady and adequate supply of minerals, there may be negative effects on biodiversity and geodiversity from mining and quarrying. However, sites may improve biodiversity through the delivery of green infrastructure as part of the development or restoration of the site. The level of these effects will depend on the location, scale and design of the developments.</p> <p>Objective 7 will have a mixed effect (uncertain minor positive/uncertain minor negative) as it seeks to ensure that there is adequate provision for waste management infrastructure to achieve self-sufficiency which may have negative effects on biodiversity if facilities are sited on or close to protected habitats or where habitats and species may be disturbed by activities and noise. Implementing new sustainable waste management measures will reduce the need for new landfill sites, which are likely to result in more habitat loss than more modern urban facilities. The level of these effects will depend on the location, scale and design of the developments.</p> <p>Objective 8 supports the use of alternatives to road transport and steers new development to locations that are served by suitable transport networks which will reduce adverse effects on biodiversity such as noise, air pollution, and vibration. Although this is uncertain until the location, scale and design of the developments are known.</p>
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+/-?	+?/-?	+?/-?	+?	Objective 5 seeks to optimise the contribution that mineral working and waste management makes to Hereford’s economy. Increased mining and quarrying could lead to adverse effects on landscape character and quality however the level of effects would be dependent on location, scale and design of mining works. The objective states that this should be balanced with the protection of places, which is assumed to include the landscape. There may also be opportunities to provide green infrastructure as part of the development or restoration of sites which would benefit the landscape. A mixed effect (minor positive/uncertain minor negative)

SA Objective	SA Score – Economic Objectives				Justification
					<p>effect is identified for this SA objective.</p> <p>Objective 6 will have a mixed effect (uncertain minor positive/uncertain minor negative) as it is possible that, by producing a steady and adequate supply of minerals, there may be negative effects associated with mining and quarrying on landscape quality and character. However, there may also be opportunities to provide green infrastructure as part of the development or restoration of sites which would benefit the landscape. The level of these effects will depend on the location, scale and design of the developments.</p> <p>Objective 7 will have a mixed effect (uncertain minor positive/uncertain minor negative) as it seeks to ensure that there is adequate provision for waste management infrastructure to achieve self-sufficiency, depending on the location, scale and design of the waste management facility, may have negative effects on the landscape. Implementing new sustainable waste management measures will reduce the need for new landfill sites, which are likely to result in more adverse effects on the landscape than more modern urban facilities. The level of these effects will depend on the location, scale and design of the developments.</p> <p>Objective 8 supports the use of alternatives to road transport and steers new development to locations that are served by suitable transport networks which will reduce the negative impacts on the landscape character of Herefordshire. Although this is uncertain until the location, scale and design of the developments are known.</p>
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+/-?	-?	+?/-?	0	<p>Objective 5 seeks to optimise the contribution that mineral working and waste management makes to the economy. This may result in the extraction of minerals which, depending on the type of the operation, which may affect water quality, if extraction occurs below the water table. Furthermore, depending on the type of waste facility, there may be adverse effects on water resources through contamination from residual liquids or organic leachate from green waste. The objective, however, seeks to balance this with the</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>protection of people and places from adverse effects, which is assumed to include the water environment. A mixed effect is therefore identified for this objective.</p> <p>Objective 6 supports the provision of a steady and adequate supply of minerals in the county which may have a negative effect on the water environment from contamination, abstraction or diversion of water courses.</p> <p>Objective 7 seeks to ensure that there is adequate provision for waste management infrastructure to achieve self-sufficiency which, depending on the location/scale/design of the developments and the treatment processes used, may have a negative effect on the quality and quantity of water resources including groundwater aquifers. However, new facilities are likely to reduce the need for new landfill sites, thus reducing the potential for large scale leachate pollution common at such sites. A mixed effect (uncertain minor positive/uncertain minor negative) is identified for this objective.</p> <p>Objective 8 is not likely to have an effect on protecting or enhancing the quality of watercourses or maximising the efficient use of water and therefore, a negligible effect is identified for this objective.</p>
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+/-?	+?/-?	+?/-?	0	<p>Objective 5 seeks to optimise the contribution that mineral working and waste management makes to the economy. This may result in the extraction of minerals which, depending on the type of the operation, may increase the risk of flooding. The objective, however, seeks to balance this with the protection of people and places from adverse effects, which is assumed to include flood risk. The restoration of sites, although not mentioned by the objective, provides opportunities for flood water storage and management. A mixed effect is therefore identified for this objective.</p> <p>Objective 6 supports the provision of a steady and adequate supply of minerals. This may result in the extraction of minerals which, depending on the type of the operation, may increase the risk of flooding. The restoration of sites, although not mentioned by the</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>objective, provides opportunities for flood water storage and management. A mixed effect is therefore identified for this objective.</p> <p>Objective 7 seeks to ensure that there is adequate provision for waste management infrastructure which, depending on the type of development, may be suitable in flood risk zones. For example, landfills and sites used for waste management facilities for hazardous waste are suitable in Flood Zones 1, 2 and potentially 3a, while waste treatment facilities are suitable in all flood zones excluding 3b.</p> <p>Objective 8 is not likely to reduce the risk of flooding and therefore, a negligible effect is identified for this objective.</p>
16. Minimise noise, light, and air pollution.	+/-?	+/-?	+/-?	+	<p>Objective 5 seeks to optimise the contribution that mineral working makes to the economy, which may mean that there could be negative effects associated with mining and quarrying such as dust, noise, odour, and air pollution. The level of these effects will depend on the location, scale and design of the developments. However, the objective seeks to balance the benefits with protection to people and places from adverse effects which should help to reduce the effects of mineral extraction of local populated areas.</p> <p>Objective 6 will have a mixed effect (minor positive/uncertain minor negative) as it seeks to ensure a steady and adequate supply of minerals in Herefordshire which will reduce the need to import minerals thereby reducing transport emissions. However, by producing a steady and adequate supply of minerals, there may be negative effects associated with mining and quarrying such as dust, noise, odour, and air pollution. The level of these effects will depend on the location, scale and design of the developments.</p> <p>Objective 7 will have a mixed effect (minor positive/uncertain minor negative) as it seeks to ensure that there is adequate provision for waste management infrastructure which will ensure that the County remains reasonably self-sufficient in managing the waste it produces which will reduce transport distances of waste and air pollution.</p>

SA Objective	SA Score – Economic Objectives				Justification
					<p>However, there also may be negative effects associated with these developments such as noise, light and air pollution. Effects are uncertain until the location, scale and design of the waste management facility is known.</p> <p>Objective 8 will have a minor positive effect as it supports the use of alternatives to road transport and steers new development to locations that are served by suitable transport networks which will reduce air and noise pollution.</p>
17. Value, protect and enhance soil quality and resources.	+?/-?	+?/-?	+?/-?	0	<p>Objectives 5 and 6 seek to optimise the contribution that mineral workings have on the economy as well as to ensure a steady and adequate supply of minerals. This may lead to more mineral extraction activities, increasing the potential impact on soils (e.g. removal of soil, contamination from leaching of chemical and oil spillages and leachate break-out). Positive effects may be experienced through site restoration which can lead to the enhancement of soil quality.</p> <p>Objective 7 will have a mixed effect (uncertain minor positive/uncertain minor negative) as unlike mineral developments which are limited to where the resource lies; waste management facilities can be located on brownfield land. There is also potential for positive effects on the soil environment by reducing the need for landfill. However, it is possible that there may be contamination of soils from the processes used during waste treatment.</p> <p>Objective 8 is not likely to protect or enhance soil quality or resources and therefore, a negligible effect is identified for this objective.</p>

Environmental objectives

SA Objective	SA Score – Environmental Objectives	Justification
--------------	-------------------------------------	---------------

	9	10	11	12	
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	0	0	0	<p>Objective 9 will have a minor positive effect as it seeks to identify suitable locations for minerals and waste development. As minerals can only be worked where the resources lies, location options for the economically viable extraction of minerals may be restricted and therefore, the number of employment opportunities limited. However, waste related development can be located where there are synergies with complementary industries which will support economic growth and facilitate employment generation.</p> <p>Objectives 10, 11 and 12 are unlikely to generate employment opportunities and therefore, negligible effects are expected for this SA objective.</p>
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	0	0	0	<p>Objective 9 will have a minor positive effect as it seeks to identify suitable locations for minerals and waste development. As minerals can only be worked where the resources lies, location options for the economically viable extraction of minerals may be limited. However, waste related development can be located where there are synergies with complementary industries which will support economic growth in Herefordshire.</p> <p>Objectives 10, 11 and 12 are unlikely to encourage investment in the local economy and therefore, negligible effects are expected for this SA objective.</p>
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?/- ?	+	+	+	<p>Objective 9 will have a mixed effect (uncertain minor positive/uncertain minor negative) as it seeks to identify suitable locations for minerals and waste developments which may have adverse effects from the operation of these developments (e.g. dust, noise, odour, vibration and traffic levels) on health and amenity. Furthermore, waste developments are likely to be located where most waste is generated (urban areas) thereby subjecting larger numbers of people to these negative effects. However, positive effects may be achieved through the delivery of green infrastructure, enhanced public rights of way or improved access to recreation as part of the development and restoration of sites.</p> <p>Objective 10 will have a minor positive effect as it seeks to achieve sustainable communities and protect the environment by delivering well-designed minerals and waste developments that are supported by green infrastructure which may improve health and amenity by providing areas for recreation.</p> <p>Objective 11 will have a minor positive effect as it seeks to address the causes</p>

SA Objective	SA Score – Environmental Objectives				Justification
					<p>and impacts of climate change relating to minerals and waste development activity which will reduce negative effects such as air pollution and emissions thereby improving the health and well-being of residents in Herefordshire.</p> <p>Objective 12 will have a minor positive effect as it seeks to protect, conserve and enhance the county’s natural and built environment assets and people’s enjoyment of this, all of which may improve the health, wellbeing and quality of life of residents.</p>
<p>4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.</p>	+	0	0	0	<p>Objective 9 will have a minor positive effect as it seeks to identify suitable locations for minerals and waste development. As minerals can only be worked where the resources lies, location options for the economically viable extraction of minerals may be restricted and therefore, the number of employment opportunities for local people limited. However, waste related development can be located where there are synergies with complementary industries which will support economic growth and facilitate employment generation in Herefordshire.</p> <p>Objectives 10, 11 and 12 are unlikely to provide opportunities for local people to access employment and skills in the minerals and waste sectors and therefore, negligible effects are expected for this SA objective.</p>
<p>5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.</p>	+?/- ?	0	+?	0	<p>Objective 9 will have a mixed effect (uncertain minor positive/uncertain minor negative) as minerals will need to be worked where the resource lies which may increase the transportation of minerals by road if the site is not in close proximity to sustainable transport modes such as rail or water. Although most waste is transported by road, waste developments may be located in close proximity to sustainable transport networks (rail) which would reduce traffic, congestion and pollution. Effects are uncertain until the location of the developments is known.</p> <p>Objectives 10 and 12 are unlikely to reduce road traffic, congestion or pollution and therefore, negligible effects are expected for this SA objective.</p> <p>Objective 11 seeks to address the causes and impacts of climate change relating to minerals and waste development activity which may include supporting the use of alternatives to road transport thereby reducing road traffic, congestion and pollution.</p>

SA Objective	SA Score – Environmental Objectives				Justification
<p>6. Value, protect and enhance the county's historic environment and cultural heritage.</p>	+/-?	+	+	++	<p>Objective 9 will have a mixed effect (minor positive/minor negative) as it is possible to locate waste developments away from designated and undesignated historic assets, however, mineral developments are limited to where the resource lies which may be near protected historic assets.</p> <p>Objective 10 promotes the delivery of well-designed mineral and waste developments that reinforce local distinctiveness and are supported by green infrastructure which can contribute to the setting of historic assets.</p> <p>Objective 11 seeks to address the causes and impacts of climate change relating to minerals and waste development activity including reducing greenhouse gas emissions which can have a detrimental impact on the fabric of historic buildings.</p> <p>Objective 12 will have a significant positive effect as it supports the protection, conservation and enhancement of historic assets. Furthermore, it supports the use of local building stone to help maintain and improve the quality of the built environment and local distinctiveness.</p>
<p>7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.</p>	+/-?	+	+	++	<p>Objective 9 will have a mixed effect (minor positive/uncertain minor negative) as it is possible to locate waste developments away from designated and undesignated historic assets, however, mineral developments are limited to where the resource lies which may be near settlements or neighbourhoods.</p> <p>Objective 10 promotes the delivery of well-designed mineral and waste developments that use land efficiently, reinforce local distinctiveness and are supported by green infrastructure which can contribute to the character and built quality of settlements.</p> <p>Objective 11 seeks to address the causes and impacts of climate change relating to minerals and waste development activity, including using opportunities from reclamation activity to mitigate and adapt to climate change, which could include green infrastructure which has benefits for enhancing the character of an area.</p> <p>Objective 12 will have a significant positive effect as it supports the protection, conservation and enhancement of the built environment for the fullest benefits of the whole community, whilst ensuring best condition and site betterment.</p>

SA Objective	SA Score – Environmental Objectives				Justification
8. Move treatment of waste up the waste hierarchy.	+	0	+	0	<p>Objective 9 will have a minor positive effect as waste developments can be located near to sites that either are an important source of waste arisings or a market for processed waste materials which would support a circular economy.</p> <p>Objectives 10 and 12 are unlikely to move the treatment of waste up the waste hierarchy and therefore, negligible effects are expected for this SA objective.</p> <p>Objective 11 will have a minor positive effect as it supports sustainable working practices to adapt to and mitigate the impacts of climate change which may include sustainable waste management practices.</p>
9. Promote sustainable use of mineral resources.	-	0	+	0	<p>Objective 9 will have a minor negative effect as identifying suitable locations for minerals development will encourage mineral extraction.</p> <p>Objectives 10 and 12 are unlikely to promote the sustainable use of mineral resources and therefore, negligible effects are expected for this SA objective.</p> <p>Objective 11 will have a minor positive effect as it supports mineral and waste developments that help adapt to and mitigate the impacts of climate change including the more sustainable use of resources such as recycled and secondary aggregates, and the generation of renewable energy through energy from waste facilities which would reduce extraction of non-renewable resources.</p>
10. Reduce Herefordshire’s vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/- ?	0	++	0	<p>Objective 9 will have a mixed effect (uncertain minor positive/uncertain minor negative) as minerals will need to be worked where the resource lies which may increase the transportation of minerals by road if the site is not in close proximity to sustainable transport modes thereby increasing greenhouse gas emissions. Waste developments may be located in close proximity to sustainable modes of transport or where most of the waste is generated which would reduce the distance waste is transported, thereby reducing greenhouse gas emissions. Effects are uncertain until the location of the developments is known.</p> <p>Objectives 10 and 12 are unlikely to reduce the impacts of climate change and therefore, negligible effects are expected for this SA objective.</p> <p>Objective 11 will have a significant positive effect as it seeks to address the causes and impacts of climate change relating to minerals and waste development activity including using opportunities arising from minerals and</p>

SA Objective	SA Score – Environmental Objectives				Justification
					waste operations and reclamation activity to mitigate and adapt to climate change and to leave a positive legacy.
11. Promote effective restoration and appropriate after use of sites.	0	+?	+?	+?	<p>Objective 9 will have a negligible effect on this SA objective.</p> <p>Objective 10 will have a minor positive effect as it promotes the protection of the environment by delivering well-designed minerals and waste developments that are supported by green infrastructure which may be delivered as part of the restoration of sites. However, this effect is uncertain.</p> <p>Objective 11 will have a minor positive effect as it supports mineral and waste developments that help adapt to and mitigate the impacts of climate change which may be achieved through the appropriate restoration of mineral and landfill sites. However, the effect is uncertain.</p> <p>Objective 12 will have a minor positive effect on this SA objective as it supports the protection, conservation and enhancement of Herefordshire’s natural environment, including green infrastructure and landscaping which may be delivered as part of the restoration of sites. However, this minor positive effect is uncertain.</p>
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+/-?	+	+	++	<p>Objective 9 will have a mixed effect (minor positive/minor negative) as it is possible to locate waste developments away from protected habitats and species, however, mineral developments are limited to where the resource lies which may be within a designated area for biodiversity.</p> <p>Objective 10 will have a minor positive effect as it promotes the protection of the environment by delivering well-designed minerals and waste developments that include green infrastructure, which can provide opportunities for enhancing biodiversity.</p> <p>Objective 11 will have a minor positive effect as it supports mineral and waste developments that help adapt to and mitigate the impacts of climate change which will reduce habitat and species losses.</p> <p>Objective 12 will have a significant positive effect as it seeks to conserve and protect biodiversity and geodiversity from loss and damage, and to reverse negative trends and encourage expansion.</p>

SA Objective	SA Score – Environmental Objectives				Justification
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+/-?	+	+	++	<p>Objective 9 will have a mixed effect (minor positive/minor negative) as it is possible to locate waste developments away from protected or sensitive landscapes, however, mineral developments are limited to where the resource lies which may be within an area of high landscape value.</p> <p>Objective 10 promotes the delivery of well-designed mineral and waste developments that reinforce local distinctiveness and are supported by green infrastructure, which will minimise the landscape and visual intrusion of waste and mineral facilities.</p> <p>Objective 11 will have a minor positive effect as it supports mineral and waste developments that help adapt to and mitigate the impacts of climate change, which can include restoring former mineral and landfill sites thereby restoring the landscape quality of Herefordshire.</p> <p>Objective 12 will have a significant positive effect as it seeks to conserve, protect and enhance the landscape character and quality of Herefordshire particularly the AONB. It also supports the utilisation of a strategic approach to reclamation of mineral sites which would restore landscape quality.</p>
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+/-?	+	+	++	<p>Objective 9 will have a mixed effect (minor positive/uncertain minor negative) as it is possible to locate waste developments away from vulnerable surface and groundwater, however, mineral developments are limited to where the resource lies which may be within close proximity to vulnerable watercourses.</p> <p>Objective 10 will have a minor positive effect as it supports the protection of the environment which includes the water environment.</p> <p>Objective 11 will have a minor positive effect as it supports mineral and waste developments that help adapt to and mitigate the impacts of climate change by using more sustainable design and working practices which may include water pollution control measures and measures to minimise water usage.</p> <p>Objective 12 will have a significant positive effect as it seeks to conserve, protect and enhance ground and surface waters.</p>
15. Reduce the risk of flooding and the resulting	+/-?	+	+	++	<p>Objective 9 will have a mixed effect (minor positive/uncertain minor negative) as it is possible to locate waste developments away from areas at risk of</p>

SA Objective	SA Score – Environmental Objectives				Justification
detriment to public well-being, the economy and the environment.					<p>flooding, however, mineral developments are limited to where the resource lies which may be within an area susceptible to flooding.</p> <p>Objective 10 will have a minor positive effect as it promotes the protection of the environment by delivering well-designed minerals and waste developments that include green infrastructure which will increase the area of permeable surfaces thereby reducing flood risk.</p> <p>Objective 11 will have a minor positive effect as it supports mineral and waste developments that help adapt to and mitigate the impacts of climate change which can include avoiding areas of flood risk and providing opportunities for water storage in flood zones.</p> <p>Objective 12 will have a significant positive effect as it seeks to conserve, protect and enhance ground and surface waters and green infrastructure which can reduce the risk of flooding.</p>
16. Minimise noise, light, and air pollution.	+?/- ?	0	++	0	<p>Objective 9 will have a mixed effect (minor positive/uncertain minor negative) as minerals will need to be worked where the resource lies, which may increase the transportation of minerals by road if the site is not in close proximity to sustainable transport modes, thereby increasing air pollution. Waste developments may be located in close proximity to sustainable modes of transport, or where most of the waste is generated, which would reduce the distance waste is transported thereby benefiting air quality. Effects are uncertain until the location of the developments is known.</p> <p>Objectives 10 and 12 are unlikely to minimise noise, light and air pollution and therefore, negligible effects are expected for this SA objective.</p> <p>Objective 11 will have a significant positive effect as it supports mineral and waste developments that help adapt to and mitigate the impacts of climate change which will reduce air pollution from greenhouse gas emissions.</p>
17. Value, protect and enhance soil quality and resources.	+/-?	+	+	++	<p>Objective 9 will have a mixed (minor positive/uncertain minor negative) effect as waste developments can be located on brownfield land unlike mineral sites, which must be worked where the resource lies, which could be located on Best and Most Versatile Agricultural Land.</p>

SA Objective	SA Score – Environmental Objectives				Justification
					<p>Objective 10 will have a minor positive effect as it promotes the protection of the environment by delivering well-designed minerals and waste developments that use land efficiently which will reduce negative impacts on soil quality and structure.</p> <p>Objective 11 will have a minor positive effect as it supports mineral and waste developments that help adapt to and mitigate the impacts of climate change, including taking a long-term view for sites to provide ecosystem services, and the maintenance of agricultural capacity which will benefit soil quality and structure.</p> <p>Objective 12 will have a significant positive effect as it seeks to conserve, protect and enhance the natural environment (including green infrastructure) by ensuring best condition and site betterment, as well as prevention of loss or damage of assets. This would benefit the soil environment.</p>

Policy SS8: Resource Management

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	This policy will have a minor positive effect on this SA objective as promoting a circular economy, and managing waste and minerals in accordance with the Waste Hierarchy will generate employment opportunities in the recycling and secondary aggregates industry.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	This policy will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will support the economy by encouraging new waste management businesses to relocate to the County where there is a demand for waste re-use and recycling services. Construction companies which rely on aggregate are also likely to be attracted to the County where there is potential access to cheaper recycled and secondary aggregates, thereby encouraging investment.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+	This policy will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will divert waste from landfills, and reduce waste management transportation which will reduce negative effects such as air pollution and emissions, thereby improving the health and well-being of residents in Herefordshire. Promoting a circular economy, including the re-use of minerals, will also reduce the need for new extraction, again which would reduce adverse effects such as noise and dust generation, both of which can affect health and amenity.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	This policy will have a minor positive effect on this SA objective as promoting a circular economy, and managing waste and minerals in accordance with the Waste Hierarchy will generate employment opportunities in the recycling and secondary aggregates industry, which will reduce employment deprivation in the County.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+	A circular economy will help to keep products and materials at their highest value for as long as possible, thereby reducing the need to transport residual waste within and outside the County. A minor positive effect is identified for this SA objective.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+	The promotion of the circular economy will reduce the need for extraction of raw materials from sites within the County, which otherwise may adversely affect the historic environment, in terms of direct loss of assets or effects on their setting. A minor positive effect is therefore identified for this SA objective.

SA Objective	SA Score	Justification
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+	The promotion of the circular economy will reduce the need for extraction of raw materials from sites within the County, which otherwise may adversely affect the character and built quality of settlements and neighbourhoods. A minor positive effect is therefore identified for this SA objective.
8. Move treatment of waste up the waste hierarchy.	++	This policy directly addresses this SA objective by seeking to promote a circular economy which improves resource efficiency and reuse of waste. The policy also requires developers to demonstrate (through a Resource Audit) how waste will be minimised during construction and operation of major developments, and how it will be managed (including optimum diversion from landfill), in order to meet the strategic objective of driving waste management up the waste hierarchy.
9. Promote sustainable use of mineral resources.	++	This policy directly addresses this SA objective by seeking to promote a circular economy which improves resource efficiency and reuse of minerals. This in turn will reduce the need for the extraction of raw aggregate from sites across the County. A significant positive effect is identified for this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	++	This policy will have a significant positive effect on this SA objective as it directs minerals and waste resources to contribute positively to addressing climate change through promoting a circular economy and managing waste in accordance with the Waste Hierarchy will reduce energy use and greenhouse gas emissions associated with its transportation.
11. Promote effective restoration and appropriate after use of sites.	0	This policy will have a negligible effect on this SA objective.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+	The promotion of the efficient use of mineral reserves and transitioning to a more circular economy will reduce the rate of extraction of natural resources and any associated impacts on biodiversity and geodiversity within the County. A minor positive effect is identified for this SA objective.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+	The promotion of the efficient use of mineral reserves and transitioning to a more circular economy will reduce the rate of extraction of natural resources, and any associated impacts on the landscape within the County. A minor positive effect is identified for this SA objective.

SA Objective	SA Score	Justification
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+	This policy will have a minor positive effect as it supports a reduction in waste production and the recovery of waste materials (including water) and residuals as a valuable resource.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This policy is unlikely to reduce the risk of flooding and therefore will have a negligible effect on this SA objective.
16. Minimise noise, light, and air pollution.	+	This policy will have a minor positive effect on this SA objective as promoting a circular economy and managing waste in accordance with the Waste Hierarchy will reduce greenhouse gas emissions (for example from the transportation of waste and raw materials) thereby benefiting air quality.
17. Value, protect and enhance soil quality and resources.	+	This policy will help to promote efficient resource use and avoid activities which could otherwise lead to the loss of good quality soil resources, such as new mineral extraction and the landfilling of residual waste. A minor positive effect is identified for this SA objective.

Policy OS4: Access to Open Space and Recreation from Minerals and Waste Development

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	0	Policy OS4 will not have a direct effect on this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	0	Policy OS4 will not have a direct effect on this SA objective.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	++	This policy will have a significant positive effect on this SA objective as it seeks to ensure that outdoor facilities including open spaces, green infrastructure and links to the existing rights of way network are provided at mineral workings and waste sites at the earliest opportunity and not restricted to the restoration phase. It also seeks to ensure that there will be minimal disruption to rights of way and open spaces, and where there are any permanent diversions or

SA Objective	SA Score	Justification
		losses, that new provision is designed to be of a better quality than that lost. This will have positive benefits for maintaining and encouraging recreation throughout the county which will have beneficial effects for the health and amenity of communities.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	0	Policy OS4 will not have a direct effect on this SA objective.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+	Policy OS4 supports the provision of new recreational assets such as mountain bike trails or walking routes which encourages the use of sustainable modes of transport.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+	The supporting text of policy OS4 acknowledges that footpaths are rooted in an historical context and that a permanent division may sever important cultural links. It states that permanent divisions should be well-designed, reflecting the local cultural context. The supporting text also states that sites should provide access to archaeological assets, either across the site or as features along the route. Therefore, a minor positive effect is expected for this SA objective.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+	The provision of green infrastructure as part of the development and restoration of mineral and waste sites has benefits for enhancing the character and built quality of settlements and neighbourhoods. A minor positive effect is therefore identified for this SA objective.
8. Move treatment of waste up the waste hierarchy.	0	Policy OS4 will not have a direct effect on this SA objective.
9. Promote sustainable use of mineral resources.	0	Policy OS4 will not have a direct effect on this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	0	Policy OS4 will not have a direct effect on this SA objective.

SA Objective	SA Score	Justification
11. Promote effective restoration and appropriate after use of sites.	++	Policy OS4 supports the incorporation of open spaces, green infrastructure and links to the existing rights of way network as part of the restoration of mineral and waste sites. A significant positive effect is expected for this SA objective.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+	The protection and enhancement of open spaces and green infrastructure, as promoted by this policy, has benefits for protecting and enhancing biodiversity, through improving biodiversity networks and creating new habitats. The supporting text also states that sites should provide access to geodiversity assets, either across the site or as features along the route. Therefore, a minor positive effect is expected for this SA objective.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	++	A significant positive effect is expected as the protection and enhancement of green infrastructure and open space as part of mineral and waste developments, as promoted by this policy, directly addresses this SA objective.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	Policy OS4 will not have a direct effect on this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+	The protection and enhancement of green infrastructure, as promoted by this policy, has benefits for helping to reduce the adverse effects associated with flooding by providing increasing permeable land cover. A minor positive effect is identified for this SA objective.
16. Minimise noise, light, and air pollution.	+	The provision of open spaces integrating green infrastructure as part of mineral workings and waste sites, which may include trees and hedgerows, will assist in improving local air quality and may act as buffers for noise pollution from the activities undertaken at the sites.
17. Value, protect and enhance soil quality and resources.	+	Policy OS4 supports the provision of open spaces integrating green infrastructure which will have beneficial effects on soil quality and stability.

Policy MT2: Transport within Sites

SA Objective	SA Score	Justification
--------------	----------	---------------

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	0	Policy MT2 will not have a direct effect on this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	0	Policy MT2 will not have a direct effect on this SA objective.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+	This policy requires the efficient transportation of minerals or waste within sites in order to reduce greenhouse gas emissions associated with vehicles. The policy requires operators to consider the use of conveyers, pipelines or electric vehicles appropriate to the circumstances and nature of the site. These measures would help to reduce air pollution, noise and dust emissions. The policy also seeks to encourage minerals and waste operators to optimise the incorporation of green infrastructure to reduce transport-related effects and to incorporate cycle links or footpaths in the restoration of sites. Overall, a minor positive effect is identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	0	Policy MT2 will not have a direct effect on this SA objective.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	++	The policy encourages the use of electric vehicles to transport minerals or waste within sites which will have a direct positive effect on this SA objective.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+	The policy requires the transportation of materials or wastes within sites to minimise the potential for adverse effects. The supporting text requires internal transport routes to avoid important historic features. A minor positive effect is identified as the policy supports the conservation of the historic environment.
7. Value, protect and enhance the character and built quality of	+	The policy requires the transportation of materials or waste within sites to minimise the potential for adverse effects. This is assumed to include the character and quality of settlements and neighbourhoods. A minor positive effect is identified as the policy encourages the use of

SA Objective	SA Score	Justification
settlements and neighbourhoods.		green infrastructure within sites which may provide screening from mineral activities thereby protecting the character of the surrounding area.
8. Move treatment of waste up the waste hierarchy.	0	Policy MT2 will not have a direct effect on this SA objective.
9. Promote sustainable use of mineral resources.	0	Policy MT2 will not have a direct effect on this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+	This policy requires the efficient transportation of minerals or waste within sites in order to reduce greenhouse gas emissions associated with vehicles. A minor positive effect is therefore identified for this SA objective.
11. Promote effective restoration and appropriate after use of sites.	+	The policy seeks to encourage minerals and waste operators to optimise the incorporation of green infrastructure to facilitate effective site restoration, such as landscaping of internal transport routes to enable planting to mature during and after site use, or designing of internal transport routes to be used as cycle links or footpaths. A minor positive effect is therefore identified for this SA objective.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+	The policy requires the transportation of materials or wastes within sites to minimise the potential for adverse effects. The supporting text requires transport routes to be designed to protect existing wildlife movement and to enhance wildlife corridors. The policy also seeks to encourage minerals and waste operators to optimise the incorporation of green infrastructure which may encourage biodiversity within the site. A minor positive effect is therefore identified for this SA objective.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+	The policy requires the transportation of materials or wastes within sites to minimise the potential for adverse effects. The supporting text requires internal transport routes to optimise natural attributes, such as following an existing hedgerow or wooded area within the site, whilst sensitive or visually exposed land should be avoided. The policy also seeks to encourage the use of green infrastructure within sites which should contribute to minimising the landscape and visual intrusion of waste and mineral facilities. A minor positive effect is therefore identified for this SA objective.
14. Value, protect and enhance the	+	The policy requires the transportation of materials or wastes within sites to minimise the

SA Objective	SA Score	Justification
quality of watercourses and maximise the efficient use of water.		potential for adverse effects. This is assumed to incorporate the protection of watercourses within and connected to the sites. A minor positive effect is therefore identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+	The policy requires the transportation of materials or wastes within sites to minimise the potential for adverse effects. The supporting text requires that flood risk on site should be considered to ensure there is a safe route from the working faces to the site exit or refuge point. The policy also encourages the use of green infrastructure within sites with the intention that this will be in place following the use of the site which will have positive effects for increasing permeable land in the county and reducing flood risk. A minor positive effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	+	This policy requires the efficient transportation of minerals or waste within sites in order to reduce greenhouse gas emissions associated with vehicles. The policy requires operators to consider the use of conveyers, pipelines or electric vehicles appropriate to the circumstances and nature of the site. These measures would help to reduce air pollution, noise and dust emissions. A minor positive effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	+?	The development of internal transport routes within sites may reduce the amount of Best and Most Versatile Agricultural Land, however, the restoration of sites is likely to result in land of equal value being returned following the development. The policy also encourages the incorporation of green infrastructure within sites with the intention that this will be in place following the use of the site which will have beneficial effects for increasing soil quality over the long term. Overall, an uncertain minor positive effect is identified for this SA objective.

Policy SD5: Site Reclamation

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	0	Policy SD5 will not have a direct effect on this SA objective.

SA Objective	SA Score	Justification
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	0	Policy SD5 will not have a direct effect on this SA objective.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?	This policy will have an uncertain minor positive effect on this objective as it supports site restoration which includes integrated green infrastructure. This may have benefits for encouraging recreational use of the site, although this is not known at this stage.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	0	Policy SD5 will not have a direct effect on this SA objective.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	The restoration of sites may create or include links to walking routes although this is unknown at this stage.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+	This policy will have a minor positive effect on this SA objective as site reclamation schemes will be required to demonstrate that proposals take into account the geography of the site and its surroundings and to include proposals that deliver landscape-scale benefits or green infrastructure, all of which will serve to conserve the setting of heritage assets.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+	This policy will have a minor positive effect on this SA objective as site reclamation schemes will be required to demonstrate that proposals take into account the geography of the site and its surroundings and to include proposals that deliver landscape-scale benefits or green infrastructure, all of which will serve to enhance the character and built quality of settlements and neighbourhoods.
8. Move treatment of waste up the waste hierarchy.	0	Policy SD5 will not have a direct effect on this SA objective.
9. Promote sustainable use of mineral resources.	0	Policy SD5 will not have a direct effect on this SA objective.

SA Objective	SA Score	Justification
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	0	Policy SD5 will not have a direct effect on this SA objective.
11. Promote effective restoration and appropriate after use of sites.	++	This policy will have a direct significant positive effect on this objective as it promotes satisfactory reclamation of minerals and waste sites to a beneficial after-use to a high standard which integrates green infrastructure and leaves a positive legacy. The policy also requires applicable sites to implement a Reclamation Plan, setting out the management requirements and aftercare periods.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+	This policy will have a minor positive effect on this SA objective as site reclamation schemes will be required to demonstrate that proposals take into account their surroundings and include measures such as green infrastructure, which will support biodiversity enhancement and habitat creation.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+	This policy will have a minor positive effect on this SA objective as site reclamation schemes will be required to demonstrate that proposals take into account the geography of the site and its surroundings and include proposals that deliver landscape-scale benefits or green infrastructure, all of which will serve to enhance and restore landscape quality within the county.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+	This policy will have a minor positive effect on this SA objective as site reclamation can create areas of open water and watercourses which can aid site drainage.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+	This policy will have a minor positive effect on this SA objective as site reclamation schemes will be required to demonstrate that schemes are restored to a beneficial after-use which integrates green infrastructure. This will help to increase permeable land cover in the county which will contribute towards flood attenuation. Furthermore, the restoration of sites could create new wetland habitat that provides flood storage.
16. Minimise noise, light, and air pollution.	0	Policy SD5 will not have a direct effect on this SA objective.
17. Value, protect and enhance soil	++?	This policy will have a significant positive effect on this SA objective as site reclamation schemes have the potential to return sites to agricultural use, thereby safeguarding the long-term

SA Objective	SA Score	Justification
quality and resources.		potential of best and most versatile agricultural land and conserving soil resources. However, the restoration of any sites to agricultural use is uncertain at this stage.

Policy M1: Mineral Strategy

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	This policy will have a minor positive effect on this SA objective, as the working and sustainable use of minerals resources in Herefordshire will generate employment opportunities in the minerals industry.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The allocation of preferred areas and sites where minerals development is deemed to be appropriate will encourage mining companies to invest in the county which will have positive benefits for economic growth.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+/-?	The working and winning of minerals at allocated sites is likely to result in the production of greenhouse gas emissions and noise both through their extraction and transportation, which could have adverse effects on health, although this is uncertain until the location, scale and design of the developments are known. However, this policy seeks to ensure that minerals are also worked sustainably through identifying sources of alternatives to primary reserves, and ensuring that new build development makes efficient use of secondary or recycled materials, which would reduce the need for winning material at source and thus the associated effects on health. A mixed effect (minor positive/uncertain minor negative) is identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	This policy will have a minor positive effect on this SA objective, as the working and sustainable use of minerals resources in Herefordshire will generate employment opportunities in the minerals industry which will help to reduce employment deprivation in the county.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-?	This policy will have a mixed effect on this SA objective as minerals will need to be worked where the resource lies, which may increase the transportation of minerals by road if the site is not in close proximity to sustainable transport modes such as rail. Effects are uncertain until the location of the developments is known. However, this policy seeks to ensure that minerals are also worked sustainably through identifying sources of alternatives to primary reserves, and

SA Objective	SA Score	Justification
		ensuring that new build development makes efficient use of secondary or recycled materials, which would reduce the frequency of the transportation of raw materials to market.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+/-?	This policy will have a mixed effect as the working and safeguarding of mineral resources where they occur could have an adverse impact on the historic environment, although this is uncertain until the location, scale and design of the developments are known. However, positive effects may be achieved through the efficient use of land by working quarries in close proximity. This would have benefits for reducing widespread effects on the historic environment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+/-?	This policy will have a mixed effect as the working and safeguarding of mineral resources where they occur could have an adverse impact on the character and built quality of settlements and neighbourhoods, although this is uncertain until the location, scale and design of the developments are known. However, positive effects may be achieved through the efficient use of land by working quarries in close proximity. This would have benefits for reducing widespread effects on numerous settlements.
8. Move treatment of waste up the waste hierarchy.	+/-	Despite seeking to reduce demand, the extraction of primary minerals for construction is likely to continue to be required throughout the plan period. The allocation of minerals sites encourages the extraction of new raw materials which would have an adverse effect on reducing waste. However, the policy also advocates that minerals be worked sustainably through identifying sources of alternatives to primary reserves, and ensuring that new-build and refurbishment developments make efficient use of secondary or recycled materials, which should help to treat waste more as a valuable resource. A mixed effect (minor positive/minor negative) is identified for this SA objective.
9. Promote sustainable use of mineral resources.	++/-	Whilst the working of new minerals sites is promoted through this policy by means of support for new site allocations, its main aim is to ensure that mineral resources are worked sustainably through identifying sources of alternatives to primary reserves, and ensuring that new-build and refurbishment developments make efficient use of secondary or recycled materials. A mixed effect (significant positive/minor negative) is identified for this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+/-?	This policy will have a mixed effect on this SA objective as minerals will need to be worked where the resource lies, which may increase the transportation of minerals by road if the site is not in close proximity to sustainable transport modes such as rail or water. Soil disturbance from the extraction of minerals may also release carbon as soils and geological formations can store carbon in fairly inert forms. Effects are uncertain until the location of the developments is

SA Objective	SA Score	Justification
		known. However, this policy seeks to ensure that minerals are also worked sustainably through identifying sources of alternatives to primary reserves, and ensuring that new build development makes efficient use of secondary or recycled materials, which would reduce the frequency of the transportation of raw materials to market. The policy also places restrictions on the extraction and use of coal for energy, whereby the benefits will outweigh the impacts, including greenhouse gas emissions.
11. Promote effective restoration and appropriate after use of sites.	0	This policy will not have a direct effect on SA objective 11.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+/-?	This policy will have a mixed effect as the working and safeguarding of mineral resources where they occur could have an adverse impact on the county's biodiversity and geodiversity , although this is uncertain until the location, scale and design of the developments are known. However, positive effects may be achieved through the efficient use of land by working quarries in close proximity. This would have benefits for reducing widespread effects on biodiversity.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+/-?	This policy will have a mixed effect as the working and safeguarding of mineral resources where they occur could have an adverse impact on the character and quality of the landscape, although this is uncertain until the location, scale and design of the developments are known. However, positive effects may be achieved through the efficient use of land by working quarries in close proximity. This would have benefits for reducing widespread effects on landscape.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+/-?	This policy will have a mixed effect as the working and safeguarding of mineral resources where they occur could have an adverse impact on watercourses, although this is uncertain until the location, scale and design of the developments are known. However, positive effects may be achieved through the efficient use of land by working quarries in close proximity. This would have benefits for reducing widespread effects on watercourses.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+/-?	This policy will have a mixed effect as the working and safeguarding of mineral resources where they occur could have an adverse impact on flooding, although this is uncertain until the location, scale and design of the developments are known. However, positive effects may be achieved through the efficient use of land by working quarries in close proximity. This would have benefits for reducing widespread effects on flooding.

SA Objective	SA Score	Justification
16. Minimise noise, light, and air pollution.	+/-?	This policy will have a mixed effect on this SA objective as minerals will need to be worked where the resource lies, which may increase the transportation of minerals by road if the site is not in close proximity to sustainable transport modes such as rail or water, which could have adverse effects on noise and air pollution. Effects are uncertain until the location of the developments is known. However, this policy seeks to ensure that minerals are also worked sustainably through identifying sources of alternatives to primary reserves, and ensuring that new build development makes efficient use of secondary or recycled materials, which would reduce the need for raw material extraction and transportation and associated effects.
17. Value, protect and enhance soil quality and resources.	+/-?	This policy seeks to promote the working and safeguarding of minerals resources which may lead to more mineral extraction activities, increasing the potential impact on soils (e.g. removal of soil, contamination from leaching of chemical and oil spillages and leachate break-out), although this is dependent on the location of development. However, the policy also seeks to ensure that minerals are worked sustainably through identifying sources of alternatives to primary reserves, and ensuring that new build development makes efficient use of secondary or recycled materials, which would reduce the need for raw material extraction and associated effects on soil quality.

Policy M2: Safeguarding of Minerals Resources from Sterilisation

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	This policy will have a minor positive effect on this objective as it seeks to safeguard mineral resources and only permit non-minerals development under certain circumstances, which will support the development and growth of minerals employment in Herefordshire.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	This policy will have a minor positive effect on this objective as it seeks to safeguard mineral resources which will encourage investment in the mineral sector over the long-term, thus having positive benefits for the local economy.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	-?	This policy will have a minor negative effect as it is possible that, by safeguarding mineral and waste resources for development, the effects associated with future extraction operations where the resources occur (e.g. dust, noise, odour, vibration and traffic levels) may have a negative impact on health and wellbeing, although this is uncertain until the location, scale and design of

SA Objective	SA Score	Justification
		the developments are known.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	This policy will have a minor positive effect on this objective as it seeks to safeguard mineral resources which will support the development and growth of minerals employment in Herefordshire. This will have positive benefits for reducing employment deprivation.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	-?	This policy will have minor negative effect as it seeks to safeguard mineral resources for future extraction. As the policy does not address sustainable transportation of resources, it is assumed that mineral extraction could increase road transport and associated emissions. Effects are uncertain until the locations of the developments are known.
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	This policy will have a minor negative effect as safeguarding mineral resources may lead to more mineral extraction activities that could have an adverse impact on the historic environment, although this is uncertain until the location, scale and design of the developments are known.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	-?	This policy will have a minor negative effect as safeguarding mineral resources may lead to more mineral extraction activities that could have an adverse impact on the character and built quality of settlements and neighbourhoods, although this is uncertain until the location, scale and design of the developments are known.
8. Move treatment of waste up the waste hierarchy.	0	The policy will not have a direct effect on this SA objective.
9. Promote sustainable use of mineral resources.	+++	This policy seeks to safeguard minerals resources from being unnecessarily lost to non-minerals development. The policy does, however, state that minerals located on land which is needed for strategic development may be lost where the need for non-minerals development is greater than the need for the mineral resource. This introduces uncertainty to an otherwise significant positive effect as the quality of the minerals resources that could be lost is not known.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	-?	This policy will have a minor negative effect as it seeks to safeguard mineral resources for future extraction. As the policy does not address sustainable transportation of resources, it is assumed that mineral extraction could increase road transport and associated greenhouse gas emissions. Effects are uncertain until the locations of the developments are known.

SA Objective	SA Score	Justification
11. Promote effective restoration and appropriate after use of sites.	0	The policy will not have a direct effect on this SA objective.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	This policy will have a minor negative effect as safeguarding mineral resources may lead to more mineral extraction activities that could have an adverse impact on the county's biodiversity and geodiversity, although this is uncertain until the location, scale and design of the developments are known.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	-?	This policy will have a minor negative effect as safeguarding mineral resources may lead to more mineral extraction activities that could have an adverse impact on the county's landscape, although this is uncertain until the location, scale and design of the developments are known.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	This policy will have a minor negative effect as safeguarding mineral resources may lead to more mineral extraction activities that could have an adverse impact on the county's watercourses (e.g. from contamination from leaching of chemical and oil spillages and leachate break-out, release of sediment, diversion of watercourses, etc.), although this is uncertain until the location, scale and design of the developments are known.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	-?	This policy will have a minor negative effect as safeguarding mineral resources may lead to more mineral extraction activities that could have an adverse impact on flood risk, although this is uncertain until the location, scale and design of the developments are known.
16. Minimise noise, light, and air pollution.	-?	This policy will have a minor negative effect as it seeks to safeguard mineral resources for future extraction. As the policy does not address sustainable transportation of resources or protection of local settlements, it is assumed that mineral extraction could increase road transport and associated emissions and noise. Effects are uncertain until the location and scale of the developments are known.
17. Value, protect and enhance soil quality and resources.	-?	Safeguarding mineral resources may lead to more mineral extraction activities, increasing the potential impact on soils (e.g. removal of soil, contamination from leaching of chemical and oil spillages and leachate break-out), although this depends on the quality of land on which new extraction sites are located.

Policy M3: The Winning and Working of Sand and Gravel

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	++	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector. A significant positive effect is identified for this SA objective.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?/-?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may have an adverse effect on the amenity of local residents and communities as minerals development would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of minerals around and from the site.</p> <p>An uncertain minor positive effect is identified as the design and restoration of sites provides opportunities to deliver green infrastructure, enhanced public rights of way and improved access to recreation.</p> <p>Effects are uncertain and will depend on the scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people which will help reduce employment deprivation in the county.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient	+?/--?	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may transport minerals using the Moreton-on-Lugg railhead which would be a more sustainable mode of transport that road-based travel. However, due to the limited opportunities for rail transport of minerals, there

SA Objective	SA Score	Justification
movement patterns in the County.		will be a reliance on the road network. Furthermore, a large percentage of the vehicle movements associated with minerals development are heavy goods vehicles which are likely to be significant in volume. The further vehicles transporting minerals have to travel along local roads the higher the potential for traffic and congestion as they are likely to travel more slowly on local roads. Effects are uncertain and will depend on the scale, design, and proximity to sustainable transport modes and the primary road network which will not be known until the planning application stage.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+?/-?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may adversely impact on designated and undesignated heritage assets as well as buried archaeology.</p> <p>However, site restoration and after-use may enable improved access to historic sites, enhance the setting of historic features (such as water meadows), reinstate historic features such as hedgerows, or provide on-site interpretation of the site and its history in association with publicly accessible areas.</p> <p>Effects are uncertain and will depend on the location, scale, design and proximity and intervisibility with heritage assets, which will not be known until the planning application stage.</p>
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+?/-?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may adversely impact on the quality and character of the built environment.</p> <p>However, mineral sites are required to be restored to a high environmental standard resulting in land of equal value being returned following the working of a site which could have positive effects for the quality and character of the built environment.</p> <p>Effects are uncertain and will depend on the location, scale, design and proximity to settlements, which will not be known until the planning application stage.</p>
8. Move treatment of waste up the waste hierarchy.	+++	All mineral workings have the potential to treat CD&E waste, however, the allocated sites identified in the policy: Upper Lyde Quarry, Shobdon Quarry and Wellington Quarry are also identified in the HMWLP as appropriate locations for the disposal of inert waste. Overall, an uncertain significant positive effect is expected for this SA objective.
9. Promote sustainable use of mineral resources.	++	The allocation of sites in this policy provides a degree of protection to mineral resources from inappropriate non-mineral development. A significant positive effect is therefore identified for

SA Objective	SA Score	Justification
		this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/--?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may transport minerals using the Moreton-on-Lugg railhead which would be a more sustainable mode of transport than road-based travel. However, due to the limited opportunities for rail transport of minerals, there will be a reliance on the road network for transportation of minerals which will increase the emission of greenhouse gases. The extent of the negative impact will be affected by the size of sites as larger sites are likely to undertake more activities and generate significant movements of heavy goods vehicles resulting in the production of higher levels of carbon dioxide and other greenhouse gas emissions. Soil disturbance from the winning and working of sand and gravel may also release carbon as soils and geological formations can store carbon in fairly inert forms.</p> <p>Effects are uncertain and will depend on the location, scale, design, and proximity to sustainable transport modes which will not be known until the planning application stage.</p>
11. Promote effective restoration and appropriate after use of sites.	+++	<p>NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. A significant positive effect is identified as NPPF requires restoration to result in land of equal value being returned following the working of a site.</p> <p>The restoration of mineral sites also offers the potential to deliver biodiversity gains in the long term, however, many sites are restored to wetland and grassland habitats which can attract large numbers of species that may in certain circumstances pose a hazard to aircraft. There are two Aerodrome Safeguarding Zones that intersect Herefordshire – at Shobdon Airfield and Gloucestershire Airport. Where a mineral site is within an Aerodrome Safeguarding Zone there is potential for adverse impacts on aircraft safety from bird-strike however the effect is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.</p>
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?/--?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may result in habitat loss and impacts on species populations and movement. Species can also be affected through disturbance from the operation of mineral workings. Mineral site options are also likely to have negative effects on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of sites.</p> <p>However, the design and restoration of mineral sites provides opportunities for sites to</p>

SA Objective	SA Score	Justification
		<p>contribute towards national and local biodiversity targets during the restoration stage of the sites, supporting ecological networks surrounding the sites and incorporating the use of native species and habitats to encourage biodiversity within sites.</p> <p>Effects are uncertain and will depend on the location, scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+?/-?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may result in adverse impacts on designated and sensitive landscapes or the loss of open space/greenfield sites.</p> <p>However, the restoration of mineral sites provides opportunities to delivery green infrastructure.</p> <p>Effects are uncertain and will depend on the location, scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+?/-?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may result in adverse impacts on the water environment by decreasing or increasing water quality ground or surface water levels.</p> <p>However, there may be positive effects on the water environment as site reclamation can create areas of open water and watercourses which can aid site drainage.</p> <p>Effects are uncertain and will depend on the location, scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	<p>Sand and gravel working is considered a 'water compatible' use and is therefore suitable in all flood zones. A negligible effect is therefore identified for this SA objective.</p>
16. Minimise noise, light, and air pollution.	-?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of minerals around and from the site.</p> <p>Effects are uncertain and will depend on the location, scale and design which will not be known until the planning application stage.</p>

SA Objective	SA Score	Justification
17. Value, protect and enhance soil quality and resources.	+?/-?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may result in soil quality being temporarily stripped. However, top soil can be stored for re-use during the restoration of sites. As mineral extraction can only take place where the mineral occurs which may occur on greenfield sites, there may be a temporary loss of greenfield land. However, site reclamation schemes have the potential to return sites to agricultural use, thereby safeguarding the long-term potential of best and most versatile agricultural land and conserving soil resources.</p> <p>Effects are uncertain and will depend on the location, scale and design which will not be known until the planning application stage.</p>

Policy M4: The Winning and Working of Crushed Rock (Limestone)

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	++	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector. A significant positive effect is identified for this SA objective.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?/-?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may have an adverse effect on the amenity of local residents and communities as minerals development would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of minerals around and from the site.</p> <p>An uncertain minor positive effect is identified as the design and restoration of sites provides</p>

SA Objective	SA Score	Justification
		<p>opportunities to deliver green infrastructure, enhanced public rights of way and improved access to recreation.</p> <p>Effects are uncertain and will depend on the scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people which will help reduce employment deprivation in the county.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?/--?	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas is likely to require considerable flows of road-based travel. Due to the limited opportunities for rail transport of minerals, there will be a reliance on the road network. Furthermore, a large percentage of the vehicle movements associated with minerals development are heavy goods vehicles which are likely to be significant in volume. The further vehicles transporting minerals have to travel along local roads the higher the potential for traffic and congestion as they are likely to travel more slowly on local roads. Effects are uncertain and will depend on the scale, design, and proximity to sustainable transport modes and the primary road network which will not be known until the planning application stage.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+?/-?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may adversely impact on designated and undesignated heritage assets as well as buried archaeology.</p> <p>However, site restoration and after-use may enable improved access to historic sites, enhance the setting of historic features (such as water meadows), reinstate historic features such as hedgerows, or provide on-site interpretation of the site and its history in association with publicly accessible areas.</p> <p>Effects are uncertain and will depend on the location, scale, design and proximity and intervisibility with heritage assets, which will not be known until the planning application stage.</p>
7. Value, protect and enhance the character and built quality of	+?/-?	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may adversely impact on

SA Objective	SA Score	Justification
settlements and neighbourhoods.		<p>the quality and character of the built environment.</p> <p>However, mineral sites are required to be restored to a high environmental standard resulting in land of equal value being returned following the working of a site which could have positive effects for the quality and character of the built environment.</p> <p>Effects are uncertain and will depend on the location, scale, design and proximity to settlements, which will not be known until the planning application stage.</p>
8. Move treatment of waste up the waste hierarchy.	+?	All mineral workings have the potential to treat CD&E waste and in many cases the same processing equipment may be shared. All mineral workings have the potential to treat CD&E waste and will therefore have an uncertain minor positive effect on this SA objective.
9. Promote sustainable use of mineral resources.	++	The allocation of sites in this policy provides a degree of protection to mineral resources from inappropriate non-mineral development. A significant positive effect is therefore identified for this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/--?	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may transport minerals using the Moreton-on-Lugg railhead which would be a more sustainable mode of transport than road-based travel. However, due to the limited opportunities for rail transport of minerals, there will be a reliance on the road network for transportation of minerals which will increase the emission of greenhouse gases. The extent of the negative impact will be affected by the size of sites as larger sites are likely to undertake more activities and generate significant movements of heavy goods vehicles resulting in the production of higher levels of carbon dioxide and other greenhouse gas emissions. Soil disturbance from the winning and working of crushed rock may also release carbon as soils and geological formations can store carbon in fairly inert forms.</p> <p>Effects are uncertain and will depend on the location, scale, design, and proximity to sustainable transport modes which will not be known until the planning application stage.</p>
11. Promote effective restoration and appropriate after use of sites.	+++	<p>NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. A significant positive effect is identified as NPPF requires restoration to result in land of equal value being returned following the working of a site.</p> <p>The restoration of mineral sites also offers the potential to deliver biodiversity gains in the long term, however, many sites are restored to wetland and grassland habitats which can attract</p>

SA Objective	SA Score	Justification
		<p>large numbers of species that may in certain circumstances pose a hazard to aircraft. There are two Aerodrome Safeguarding Zones that intersect Herefordshire – at Shobdon Airfield and Gloucestershire Airport. Where a mineral site is within an Aerodrome Safeguarding Zone there is potential for adverse impacts on aircraft safety from bird-strike however the effect is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.</p>
<p>12. Value, maintain, restore and expand county biodiversity and geodiversity.</p>	<p>+?/-?</p>	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may result in habitat loss and impacts on species populations and movement. Species can also be affected through disturbance from the operation of mineral workings. Mineral site options are also likely to have negative effects on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of sites.</p> <p>However, the design and restoration of mineral sites provides opportunities for sites to contribute towards national and local biodiversity targets during the restoration stage of the sites, supporting ecological networks surrounding the sites and incorporating the use of native species and habitats to encourage biodiversity within sites.</p> <p>Effects are uncertain and will depend on the location, scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
<p>13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.</p>	<p>+?/-?</p>	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may result in adverse impacts on designated and sensitive landscapes or the loss of open space/greenfield sites.</p> <p>However, the restoration of mineral sites provides opportunities to delivery green infrastructure.</p> <p>Effects are uncertain and will depend on the location, scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
<p>14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.</p>	<p>+?/-?</p>	<p>The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may result in adverse impacts on the water environment by decreasing or increasing water quality ground or surface water levels.</p> <p>However, there may be positive effects on the water environment as site reclamation can create areas of open water and watercourses which can aid site drainage.</p>

SA Objective	SA Score	Justification
		Effects are uncertain and will depend on the location, scale, design and restoration of mineral sites which will not be known until the planning application stage.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	Crushed rock working is considered 'less vulnerable' and is therefore suitable in Flood Zones 1, 2 and 3a but unsuitable in Flood Zone 3b (the functional flood plain). Neither of the allocated sites are located within flood zones, therefore a negligible effect is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	-?	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of minerals around and from the site. Effects are uncertain and will depend on the location, scale and design which will not be known until the planning application stage.
17. Value, protect and enhance soil quality and resources.	+?/-?	The continued operation of existing quarries and the development of new quarries at either the allocated sites, within the Preferred Areas of Search or at other areas may result in soil quality being temporarily stripped. However, top soil can be stored for re-use during the restoration of sites. As mineral extraction can only take place where the mineral occurs which may occur on greenfield sites, there may be a temporary loss of greenfield land. However, site reclamation schemes have the potential to return sites to agricultural use, thereby safeguarding the long-term potential of best and most versatile agricultural land and conserving soil resources. Effects are uncertain and will depend on the location, scale and design which will not be known until the planning application stage.

Policy M5: The Winning and Working of Sandstone

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is

SA Objective	SA Score	Justification
		expected as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	++?	The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions will ensure a steady and adequate supply of minerals to meet the needs of society and will encourage long-term investment in Herefordshire's minerals sector. A significant positive effect is identified for this SA objective. However, this effect is uncertain as it will depend on the size of the site proposed site, size or extension, which is unknown at this stage in the assessment.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?/-?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions may have an adverse effect on the amenity of local residents and communities as minerals development would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of minerals around and from the site.</p> <p>An uncertain minor positive effect is identified as the design and restoration of sites provides opportunities to deliver green infrastructure, enhanced public rights of way and improved access to recreation.</p> <p>Effects are uncertain and will depend on the scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+?/-?	The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people which will help reduce employment deprivation in the county. However, this is dependent on access to sustainable transport links and the location of such sites, as a result, in some instances people (particularly those without cars) may not be able to easily access the site for employment. Effects are uncertain and will depend on the scale, design and restoration of mineral sites which will not be known until the planning application stage.

SA Objective	SA Score	Justification
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?/--?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions is likely to require considerable flows of road-based travel. Due to the limited opportunities for rail transport of minerals, there will be a reliance on the road network. Furthermore, a large percentage of the vehicle movements associated with minerals development are heavy goods vehicles which are likely to be significant in volume. The further vehicles transporting minerals have to travel along local roads the higher the potential for traffic and congestion as they are likely to travel more slowly on local roads. Effects are uncertain and will depend on the scale, design, and proximity to sustainable transport modes and the primary road network which will not be known until the planning application stage.</p>
6. Value, protect and enhance the county's historic environment and cultural heritage.	+?/-?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions may adversely impact on designated and undesignated heritage assets as well as buried archaeology.</p> <p>However, site restoration and after-use may enable improved access to historic sites, enhance the setting of historic features (such as water meadows), reinstate historic features such as hedgerows, or provide on-site interpretation of the site and its history in association with publicly accessible areas. Consideration is also given to the importance of sandstone in the continued preservation of local distinctiveness within Herefordshire.</p> <p>Effects are uncertain and will depend on the location, scale, design and proximity and intervisibility with heritage assets, which will not be known until the planning application stage.</p>
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+?/-?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions may adversely impact on the quality and character of the built environment.</p> <p>However, mineral sites are required to be restored to a high environmental standard resulting in land of equal value being returned following the working of a site which could have positive effects for the quality and character of the built environment.</p> <p>Effects are uncertain and will depend on the location, scale, design and proximity to settlements, which will not be known until the planning application stage.</p>

SA Objective	SA Score	Justification
8. Move treatment of waste up the waste hierarchy.	+?	All mineral workings have the potential to treat CD&E waste and in many cases the same processing equipment may be shared. All mineral workings have the potential to treat CD&E waste and will therefore have an uncertain minor positive effect on this SA objective.
9. Promote sustainable use of mineral resources.	++	The allocation of sites in this policy provides a degree of protection to mineral resources from inappropriate non-mineral development. A significant positive effect is therefore identified for this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/--?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions may transport minerals using the Moreton-on-Lugg railhead which would be a more sustainable mode of transport than road-based travel. However, due to the limited opportunities for rail transport of minerals, there will be a reliance on the road network for transportation of minerals which will increase the emission of greenhouse gases. The extent of the negative impact will be affected by the size of sites as larger sites are likely to undertake more activities and generate significant movements of heavy goods vehicles resulting in the production of higher levels of carbon dioxide and other greenhouse gas emissions. Soil disturbance from the winning and working of sandstone may also release carbon as soils and geological formations can store carbon in fairly inert forms.</p> <p>Effects are uncertain and will depend on the location, scale, design, and proximity to sustainable transport modes which will not be known until the planning application stage.</p>
11. Promote effective restoration and appropriate after use of sites.	++?	<p>NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard. A significant positive effect is identified as NPPF requires restoration to result in land of equal value being returned following the working of a site.</p> <p>The restoration of mineral sites also offers the potential to deliver biodiversity gains in the long term, however, many sites are restored to wetland and grassland habitats which can attract large numbers of species that may in certain circumstances pose a hazard to aircraft. There are two Aerodrome Safeguarding Zones that intersect Herefordshire – at Shobdon Airfield and Gloucestershire Airport. Where a mineral site is within an Aerodrome Safeguarding Zone there is potential for adverse impacts on aircraft safety from bird-strike however the effect is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until the planning application stage.</p>

SA Objective	SA Score	Justification
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?/-?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions may result in habitat loss and impacts on species populations and movement. Species can also be affected through disturbance from the operation of mineral workings. Mineral site options are also likely to have negative effects on geodiversity as the extraction of minerals would create a void and permanently alter the geodiversity of sites.</p> <p>However, the design and restoration of mineral sites provides opportunities for sites to contribute towards national and local biodiversity targets during the restoration stage of the sites, supporting ecological networks surrounding the sites and incorporating the use of native species and habitats to encourage biodiversity within sites.</p> <p>Effects are uncertain and will depend on the location, scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+?/-?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions may result in adverse impacts on designated and sensitive landscapes or the loss of open space/greenfield sites.</p> <p>However, the restoration of mineral sites provides opportunities to delivery green infrastructure.</p> <p>Effects are uncertain and will depend on the location, scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+?/-?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions may result in adverse impacts on the water environment by decreasing or increasing water quality ground or surface water levels.</p> <p>However, there may be positive effects on the water environment as site reclamation can create areas of open water and watercourses which can aid site drainage.</p> <p>Effects are uncertain and will depend on the location, scale, design and restoration of mineral sites which will not be known until the planning application stage.</p>
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the	0	Building rock working is considered 'less vulnerable' and is therefore suitable in Flood Zones 1, 2 and 3a but unsuitable in Flood Zone 3b (the functional flood plain) therefore a negligible effect

SA Objective	SA Score	Justification
environment.		is therefore identified for this SA objective.
16. Minimise noise, light, and air pollution.	-?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of minerals around and from the site.</p> <p>Effects are uncertain and will depend on the location, scale and design which will not be known until the planning application stage.</p>
17. Value, protect and enhance soil quality and resources.	+?/-?	<p>The continued operation of existing delves and the development of new delves at either the allocated sites, within the Preferred Areas of Search or at other appropriate locations, including micro-scale extractions may result in soil quality being temporarily stripped. However, top soil can be stored for re-use during the restoration of sites. As mineral extraction can only take place where the mineral occurs which may occur on greenfield sites, there may be a temporary loss of greenfield land. However, site reclamation schemes have the potential to return sites to agricultural use, thereby safeguarding the long-term potential of best and most versatile agricultural land and conserving soil resources.</p> <p>Effects are uncertain and will depend on the location, scale and design which will not be known until the planning application stage.</p>

Policy M6: Borrow Pits

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	Policy M6 is likely to have a minor positive effect in relation to this SA objective as it supports the beneficial after-use of borrow pits following off-site extraction associated with civil engineering construction projects. As such, this policy is expected to support the sustainable provision of minerals that strengthen the local economy and the provision of employment opportunities. However, applications for borrow pits within Herefordshire are not expected to be numerous and therefore, potential positive effects on this SA objective are judged to be minor.
2. Maintain or enhance conditions that enable a sustainable economy	+	Policy M6 is likely to have a minor positive effect on this SA objective. As stated in the policy text, the policy aims to ensure that the beneficial reclamation of borrow pits is achieved and

SA Objective	SA Score	Justification
and continued investment.		that the aftercare and after-use of borrow pits is properly controlled subject to environmental considerations. This, in turn, is expected to support long-term investment in Herefordshire's minerals sector.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?	Policy M6 is likely to have a minor positive effect on this SA objective as it aims to ensure that proposals for the development of borrow pits create significant environmental benefits and result in a high quality of development. For instance, borrow pits may be used to form recreational areas which could provide improved access to recreation with associated beneficial effects on human health. Effects are uncertain until the location and nature of the after-use of a borrow pit is known.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	Policy M6 is likely to have a minor positive effect on this SA objective as it supports the beneficial after-use of borrow pits following off-site extraction associated with civil engineering construction projects. As such, this policy is expected to support the sustainable provision of minerals and waste management that strengthen the local economy and the provision of employment opportunities.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?	Proposals for the development of borrow pits will be permitted if the borrow pit lies on or adjacent to the proposed construction project which will reduce the distance required to transport the materials (usually soil, gravel or sand). Effects on this SA objective are uncertain until the location of the development is known.
6. Value, protect and enhance the character and built quality of the county's historic environment and cultural heritage.	+?/-?	Policy M6 could have a mixed effect (uncertain minor positive/uncertain minor negative) on this SA objective as it is possible to locate off-site excavation for civil engineering construction projects away from designated and undesignated historic assets. However, the policy supports the development of borrow pits that lie on or adjacent to the proposed construction project. As mineral developments are limited to where the resource lies this may be near designated and undesignated historic assets including buried archaeology. Effects are uncertain until the location of the development is known.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+?/-?	<p>Policy M6 is likely to have a minor positive effect on this SA objective as it supports the delivery of high quality developments following the infill of borrow pits. Examples of beneficial after-uses include the development of recreational areas and wildlife habitats which, in turn, could contribute to the character and built quality of settlements.</p> <p>However, the policy supports the development of borrow pits that lie on or adjacent to the proposed construction project. As mineral developments are limited to where the resource lies</p>

SA Objective	SA Score	Justification
		this may be near settlements which could impact on the character of the built environment. Effects are uncertain until the location of the development is known.
8. Move treatment of waste up the waste hierarchy.	+	Policy M6 is likely to have a minor positive effect on this SA objective as it promotes the infill of borrow pits with unusable materials from civil engineering construction projects, whilst ensuring that the development of borrow pits create significant environmental benefits that outweigh any material planning objections. As such, this policy promotes the sustainable re-use of waste materials on a local level.
9. Promote sustainable use of mineral resources.	++	Policy M6 is likely to have a significant positive effect on this SA objective, as it promotes the efficient use of mineral resources by supporting the infill of borrow pits with unusable materials from civil engineering construction projects.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/-?	Proposals for the development of borrow pits will be permitted if the borrow pit lies on or adjacent to the proposed construction project which will reduce the distance required to transport the materials (usually soil, gravel or sand) and associated transport-related emissions. However, the creation of borrow pits may also release carbon as soils and geological formations can store carbon in fairly inert forms. Effects on this SA objective are uncertain until the location of the development is known.
11. Promote effective restoration and appropriate after use of sites.	++	Policy M6 is likely to have a significant positive effect on this SA objective, as it supports the effective restoration and appropriate after-use of borrow pits.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?/-?	Policy M6 aims to ensure that proposals for the development of borrow pits create significant environmental benefits. For instance, borrow pits may be used to form wildlife habitats or additional greenspaces, with associated benefits for local biodiversity and species. In terms of protecting and maintaining geodiversity, it is possible to locate off-site excavation away from valuable rocks, fossils, minerals, sediments and soil as well as other landforms. However, the policy supports the development of borrow pits that lie on or adjacent to the proposed construction project. As mineral developments are limited to where the resource lies this may be near sites designated for biodiversity or geodiversity. Effects are uncertain until the location and nature of the after-use of a borrow pit is known.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural	+?/-?	Policy M6 supports the delivery of high quality developments following the infill of borrow pits. Examples of beneficial after-uses include the development of recreational areas, additional greenspaces and wildlife habitats which, in turn, could contribute to the character and landscape

SA Objective	SA Score	Justification
areas and open spaces.		quality of Herefordshire. However, the policy supports the development of borrow pits that lie on or adjacent to the proposed construction project. As mineral developments are limited to where the resource lies this may be near designated or sensitive landscapes. Effects are uncertain until the location and nature of the after-use of a borrow pit is known.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+?/-?	Policy M6 is likely to have a mixed effect (uncertain minor positive/ uncertain minor negative) as it is possible to locate off-site excavation away from vulnerable surface and ground water. However, borrow pits may also be located within the mineral site which may be within close proximity to vulnerable watercourses. Effects are uncertain until the location of the development is known.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+?/-?	Policy M6 is likely to have a mixed effect (uncertain minor positive/ uncertain minor negative) as it is possible to locate off-site excavation away from areas at risk of flooding. However, mineral developments are limited to where the resource lies which may be in an area susceptible to flooding. Effects are uncertain until the location of the development is known.
16. Minimise noise, light, and air pollution.	+?	Proposals for the development of borrow pits will be permitted if the borrow pit lies on or adjacent to the proposed construction project which will reduce the distance required to transport the materials (usually soil, gravel or sand) and associated transport-related emissions. Effects on this SA objective are uncertain until the location of the development is known.
17. Value, protect and enhance soil quality and resources.	-?	Policy M6 is likely to have a minor negative effect on this SA objective, as mineral sites are likely to be located on greenfield land i.e. land that has not been excavated before. In addition, minerals will need to be excavated where the resource lies, which could have adverse implications for good quality soil and other soil resources. Effects are uncertain depending on the location of the development as well as the quality of the soil on the site.

Policy M7: Unconventional Hydrocarbons

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment	+?	Policy M7 could have a positive effect on this SA objective as it supports the development of unconventional hydrocarbon sites. This could provide additional employment opportunities in

SA Objective	SA Score	Justification
opportunities in the minerals and waste sectors.		<p>Herefordshire's energy sector, as well as the waste sector because the different streams of waste materials arising from unconventional hydrocarbon sites will need to be dealt with in an appropriate manner. The significance of these effects is judged to be minor, because there is just one area of unconventional hydrocarbon resource in Herefordshire.</p> <p>Effects on this SA objective are uncertain, as the Oil and Gas Authority has confirmed that the Petroleum Exploration and Development Licence (PEDL) that was offered to South West Energy Limited has not been taken up. Therefore, no PEDL was awarded within Herefordshire. It is possible that the area could be subject to future licencing rounds, although the Oil and Gas Authority have not been able to provide any timeframe for that.</p>
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+?	<p>Policy M7 could have a minor positive effect on this SA objective as it supports the development of unconventional hydrocarbon sites under the condition it meets stringent environmental criteria. The development of unconventional hydrocarbon sites could provide additional employment opportunities in Herefordshire's energy sector and associated waste management sector which in turn could strengthen the local economy and attract inward investment. The significance of these effects is judged to be minor, because there is just one area of unconventional hydrocarbon resource in Herefordshire.</p> <p>Effects on this SA objective are uncertain depending on the scale and location of development and, more importantly, whether a PEDL licence will be taken up for Herefordshire in the future.</p>
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?/-?	<p>Policy M7 is expected to have a minor negative effect on this SA objective as it facilitates unconventional hydrocarbon development which has the potential to adversely impact upon human health. Examples of such impacts include noise impacts, light pollution, odour nuisance, induced seismic activity, impacts on local amenity, road accidents associated with transport and on-site physical health/safety risks.</p> <p>As stated in the policy text, the policy aims to avoid any environmental impacts which may arise following unconventional hydrocarbon development. As such, the policy excludes unconventional hydrocarbon development from a number of designated areas and requires proposals to demonstrate that the proposed development adheres to a high standard of environmental protection.</p> <p>However, the policy also acknowledges that some impacts may not be avoided e.g. induced seismicity associated with re-injecting waste water via an existing borehole. The policy text states that, in the event that such adverse environmental impacts may occur, appropriate measures must be taken in order to mitigate them to an acceptable level. This means that</p>

SA Objective	SA Score	Justification
		<p>adverse effects could still occur following unconventional hydrocarbon development, albeit to a lesser degree.</p> <p>Overall, mixed effects (uncertain minor positive/uncertain minor negative) are likely to be experienced. Effects on this SA objective are uncertain depending on the scale and location of development.</p>
<p>4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.</p>	<p>+?/-?</p>	<p>Policy M7 is likely to have mixed (minor positive/minor negative) effect on this SA objective as it supports the development of unconventional hydrocarbon sites. This could provide additional employment opportunities in Herefordshire’s energy sector, as well as the waste sector because the different streams of waste materials arising from unconventional hydrocarbon sites will need to be dealt with in an appropriate manner. However, adverse impacts could occur if new unconventional hydrocarbon developments are sited near deprived areas due to potential direct impacts on local amenity resulting from drilling rigs, lighting, flaring, access roads, pipelines, perimeter fencing, generators, sealed container units for chemicals and waste materials and fluids, portable offices and work amenities.</p> <p>Effects on this SA objective are uncertain depending on the scale and location of development.</p>
<p>5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.</p>	<p>+?/-?</p>	<p>Policy M7 is likely to have a mixed (minor negative/ minor positive) effect on this SA objective as unconventional hydrocarbon developments require a considerable amount of (heavy) traffic movements over their lifetime e.g. to transport fracking fluid and transport waste materials for treatment and/or disposal off-site. Unconventional hydrocarbon sites may be located in close proximity to sustainable transport networks which would reduce traffic, congestion and pollution.</p> <p>Effects on this SA objective are uncertain depending on the scale and location of development.</p>
<p>6. Value, protect and enhance the character and built quality of the county’s historic environment and cultural heritage.</p>	<p>+?/-?</p>	<p>Policy M7 could have minor negative effects on this SA objective as it facilitates unconventional hydrocarbon development which has the potential to adversely impact upon the character and built quality of Herefordshire’s historic environment and cultural heritage assets. Examples of such impacts include: loss and/or damage of known and unknown surface and subsurface archaeology; indirect impacts arising from changes to surface drainage patterns or changes in the water table; and, direct impacts on the setting of cultural heritage assets due to the construction of roads, perimeter fencing, ancillary development and drilling rigs.</p> <p>This policy aims to avoid any adverse environmental impacts associated with unconventional hydrocarbon extraction by excluding such developments from World Heritage Sites. In addition,</p>

SA Objective	SA Score	Justification
		<p>this policy text states that proposals are required to demonstrate that no material harm to the designated asset will occur following sub-surface development underneath these designations.</p> <p>However, unconventional hydrocarbon sources are limited to where the resource is naturally occurring which may be near historic settlements and neighbourhoods. This means that adverse effects, particularly indirect effects, could still occur following unconventional hydrocarbon development, albeit to a lesser degree.</p> <p>Overall, mixed effects (uncertain minor positive/uncertain minor negative) are likely to be experienced. Effects on this SA objective are uncertain depending on the scale and location of development.</p>
<p>7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.</p>	<p>+?/-?</p>	<p>Policy M7 is judged to have could have minor negative effects on this SA objective as it facilitates unconventional hydrocarbon development which has the potential to adversely impact upon the character and built quality of settlements and neighbourhoods. Examples of such impacts include direct impacts resulting from drilling rigs, lighting, flaring, access roads, pipelines, perimeter fencing, generators, sealed container units for chemicals and waste materials and fluids, portable offices and work amenities.</p> <p>As is stated in the policy text, the policy aims to avoid any adverse environmental impacts associated with unconventional hydrocarbon development. As such, this policy excludes unconventional hydrocarbons developments from the following designated areas: Areas of Outstanding Natural Beauty; protected groundwater source areas; World Heritage Sites; Special Protection Areas; Special Areas of Conservation; Ramsar sites; and Sites of Special Scientific Interest. The policy also requires that proposals to explore, appraise or extract from beneath an Area of Outstanding Natural Beauty adhere to high standards of environmental protection.</p> <p>However, unconventional hydrocarbon sources are limited to where the resource is naturally occurring which may be near built-up areas and townscapes. This means that adverse effects could still occur following unconventional hydrocarbon development, albeit to a lesser degree.</p> <p>Overall, mixed effects (uncertain minor positive/uncertain minor negative) are likely to be experienced. Effects on this SA objective are uncertain depending on the scale and location of development.</p>
<p>8. Move treatment of waste up the waste hierarchy.</p>	<p>+</p>	<p>This policy is likely to have minor positive effects on this SA objective as it support the on-site management of the wastes arising from unconventional hydrocarbon development through re-use, recycling or treatment. The policy also states that, where off-site management or disposal of waste is required, proposals will be required to demonstrate that appropriate arrangements</p>

SA Objective	SA Score	Justification
		will have to be made.
9. Promote sustainable use of mineral resources.	-?	Policy M7 supports unconventional hydrocarbon development. National Planning Practice Guidance for onshore oil and gas states that there is normally no need to create mineral safeguarding areas to avoid sterilisation from extraction of hydrocarbons given the depth of the resource, the ability to utilise directional drilling and the small surface area requirements of the well pads. The policy could however be updated to require developers to be as efficient as possible, for example to avoid flaring and venting, wherever possible, as these can be harmful to the environment and to avoid wastage of the valuable gas resource thereby encouraging the efficient use of mineral resources. A minor negative effect is therefore identified for this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	--?	Policy M7 is likely to have a significant negative effect on this SA objective as it supports unconventional hydrocarbons which are a non-renewable indigenous fuel. Unconventional hydrocarbon development has the potential to exacerbate the impacts of climate change through increased greenhouse gas emissions primarily from the processing and use of unconventional hydrocarbons and the direct release of produced gas to the atmosphere from controlled venting or uncontrolled fugitive emissions/leakages. Depending on the location of the development, indirect greenhouse gas emissions may also arise as a consequence of development on high carbon soils. Effects on this SA objective are uncertain depending on the scale and location of development, particularly in relation to indirect greenhouse gas emissions.
11. Promote effective restoration and appropriate after use of sites.	+?	Policy M7 could have a minor positive effect on this SA objective as it promotes the effective restoration and appropriate after-use of decommissioned sites. Effects on this SA objective are uncertain depending on the scale, nature and location of the development proposed.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?/-?	<p>Policy M7 is judged to have minor negative effects on this SA objective as it facilitates unconventional hydrocarbon development which has the potential to adversely impact upon local biodiversity and geodiversity. Examples of such effects are identified as: the loss of habitat and habitat fragmentation; interference to hydro-ecological functioning; disturbance to species resulting from flaring, site lighting and site construction/maintenance; and, accidental releases of hazardous material to air, soil or water.</p> <p>As stated in the policy text, this policy aims to avoid or prevent any adverse environmental impacts associated with unconventional hydrocarbon development. As such, this policy excludes unconventional hydrocarbons developments from the following designated areas: Areas of Outstanding Natural Beauty; protected groundwater source areas; World Heritage Sites; Special</p>

SA Objective	SA Score	Justification
		<p>Protection Areas; Special Areas of Conservation; Ramsar sites; and, Sites of Special Scientific Interest. The policy also requires that proposed development and proposals for waste management adhere to high standards of environmental protection.</p> <p>However, unconventional hydrocarbon sources are limited to where the resource is naturally occurring which may be near areas characterised by the presence of geodiversity assets and/or biodiversity assets outwith the designated areas identified in the policy text. This means that adverse effects could still occur following unconventional hydrocarbon development, albeit to a lesser degree.</p> <p>Overall, mixed effects (uncertain minor positive/uncertain minor negative) are likely to be experienced. Effects on this SA objective are uncertain depending on the scale and location of development.</p>
<p>13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.</p>	<p>+?/-?</p>	<p>Policy M7 is judged to have minor negative effects on this SA objective as it facilitates unconventional hydrocarbon development which has the potential to adversely impact upon the landscape quality of Herefordshire. Examples of such impacts include direct impacts resulting from drilling rigs, lighting, flaring, access roads, pipelines, perimeter fencing, generators, sealed container units for chemicals and waste materials and fluids, portable offices and work amenities.</p> <p>As stated in the policy text, this policy aims to avoid any adverse environmental impacts associated with unconventional hydrocarbon development. As such, this policy excludes unconventional hydrocarbons developments from the following designated areas: Areas of Outstanding Natural Beauty; protected groundwater source areas; World Heritage Sites; Special Protection Areas; Special Areas of Conservation; Ramsar sites; and Sites of Special Scientific Interest. The policy text states that proposals to explore, appraise or extract from beneath an Area of Outstanding Natural Beauty are required to adhere to high standards of environmental protection.</p> <p>However, unconventional hydrocarbon sources are limited to where the resource is naturally occurring which may be near rural areas and open spaces. This means that adverse effects could still occur following unconventional hydrocarbon development, albeit to a lesser degree.</p> <p>Overall, mixed effects (uncertain minor positive/uncertain minor negative) are likely to be experienced. Effects on this SA objective are uncertain depending on the scale and location of development.</p>

SA Objective	SA Score	Justification
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+?/-?	<p>Policy M7 is likely to have minor negative effects on this SA objective as it facilitates unconventional hydrocarbon development which has the potential to adversely impact upon the quality and quantity of water resources in Herefordshire. Examples of such impacts include direct water pollution resulting from the construction, operation and maintenance of well sites and impacts on water availability resulting from abstraction of water.</p> <p>This policy aims to avoid any adverse environmental impacts associated with unconventional hydrocarbon development. As such, Policy M7 excludes unconventional hydrocarbon developments from protected groundwater source areas. In addition, the policy requires that appropriate arrangements are made for the management or disposal of any returned water and naturally occurring materials arising from the development. It is judged that adverse effects could still occur following unconventional hydrocarbon development, albeit to a lesser degree.</p> <p>Overall, mixed effects (uncertain minor positive/uncertain minor negative) are likely to be experienced. Effects on this SA objective are uncertain depending on the scale and location of development.</p>
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+?/-?	<p>Policy M7 facilitates unconventional hydrocarbon development which could increase the area of impermeable surface, resulting in an increased flood risk. Furthermore, unconventional hydrocarbon sources are limited to where the resource is naturally occurring which may be in areas at risk of flooding.</p> <p>However, this policy aims to avoid any adverse environmental impacts associated with unconventional hydrocarbon development which is assumed to include impacts on flooding.</p> <p>Overall, mixed effects (uncertain minor positive/uncertain minor negative) are likely to be experienced. Effects on this SA objective are uncertain depending on the scale and location of development.</p>
16. Minimise noise, light, and air pollution.	+?/-?	<p>Site construction and maintenance activity associated with unconventional hydrocarbon developments could result in disturbance i.e. noise, light and air pollution.</p> <p>However, this policy aims to avoid any adverse environmental impacts associated with unconventional hydrocarbon development which is assumed to include impacts on noise, light and air pollution.</p> <p>Overall, mixed effects (uncertain minor positive/uncertain minor negative) are likely to be experienced. Effects on this SA objective are uncertain depending on the scale and location of</p>

SA Objective	SA Score	Justification
		development.
17. Value, protect and enhance soil quality and resources.	+?/-?	<p>Policy M7 facilitates unconventional hydrocarbon development which has the potential to adversely impact upon the soil quality and soil resources in Herefordshire. Examples of such impacts include soil sealing and ground contamination caused by leaks from surface installations. Furthermore, unconventional hydrocarbon sources are limited to where the resource is naturally occurring which may be in areas of Best & Most Versatile Agricultural Land.</p> <p>However, this policy aims to avoid any adverse environmental impacts associated with unconventional hydrocarbon development which is assumed to include impacts on the soil environment.</p> <p>Overall, mixed effects (uncertain minor positive/uncertain minor negative) are likely to be experienced. Effects on this SA objective are uncertain depending on the scale and location of development.</p>

Policy W1: Waste Strategy

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	This policy will have a minor positive effect on this SA objective as promoting a circular economy, developing new sustainable waste management infrastructure and safeguarding existing waste management facilities will generate/maintain employment opportunities in the waste industry.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	This policy will have a minor positive effect on this SA objective as promoting a circular economy will support the waste management industry and attract inward investment by waste operators into the County. This is also likely to create a market for the reuse of recycled and secondary aggregate.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?	This policy will have a minor positive effect on this SA objective as promoting a circular economy will divert waste from landfills, and reduce waste management transportation which will reduce negative effects such as air pollution and emissions, thereby improving the health and well-being of residents in Herefordshire. Effects will be dependent, however, on the size, design, type and location of new waste management infrastructure, which is unknown at this

SA Objective	SA Score	Justification
		stage.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	This policy will have a minor positive effect on this SA objective as promoting a circular economy, developing new sustainable waste management infrastructure and safeguarding existing facilities will generate/maintain employment opportunities which will reduce employment deprivation.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+	Promoting the circular economy and reducing waste being sent to landfill will reduce the transportation of waste, and so a minor positive effect is identified for this SA objective.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+?	Promoting the circular economy will reduce the need for raw material extraction in the County and disposal of waste to landfill, which could otherwise adversely affect the historic environment. In addition, the policy seeks to ensure that there is provision for the sufficient inert waste disposal capacity within the County. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on conserving the setting of heritage assets. Effects of new waste management infrastructure will be dependent on their size, design and location, which contributes to the uncertainty of the minor positive effect.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+?	Promoting the circular economy will reduce the need for raw material extraction in the County and disposal of waste to landfill, which could otherwise adversely affect the character of settlements and neighbourhoods. In addition, the policy seeks to ensure that there is provision for the sufficient inert waste disposal capacity within the County. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on enhancing the character of settlements and neighbourhoods. Effects of new waste management infrastructure will be dependent on their size, design and location, which contributes to the uncertainty of the minor positive effect.
8. Move treatment of waste up the waste hierarchy.	++	This policy seeks to reduce waste generation as well as increase reuse, recycling and energy recovery, by permitting waste development that enables the transition to a more circular economy. A significant positive effect is therefore identified as the policy directly addresses this objective.
9. Promote sustainable use of mineral	++	This policy seeks to reduce waste generation as well as increase reuse, including minerals

SA Objective	SA Score	Justification
resources.		resources, which will encourage, facilitate and create a market for recycled and secondary aggregate use. The policy also seeks to ensure that there is sufficient capacity for the disposal of inert waste. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on managing and using waste mineral by-products. A significant effect is therefore identified for this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+	Promoting the circular economy and reducing waste being sent to landfill will reduce the transportation of waste, and the associated greenhouse gas emissions. The policy also seeks to encourage energy recovery as a means of transitioning to a more circular economy, which will offset the emissions associated with fossil fuel use. A minor positive effect is identified for this SA objective.
11. Promote effective restoration and appropriate after use of sites.	+?	Whilst the policy does not directly refer to site restoration, it requires that there is sufficient capacity to dispose of inert waste, a method of which includes the restoration of mineral working sites. A minor positive effect is identified, although this is uncertain as inert waste disposal practices are not yet known.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?	Promoting the circular economy will reduce the need for raw material extraction and disposal of wastes to landfill, which could otherwise adversely affect biodiversity and geodiversity. In addition, the policy seeks to ensure that there is provision for the sufficient inert waste disposal capacity within the County. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on enhancing biodiversity and geodiversity. Effects of new waste management infrastructure will be dependent on their size, design and location, which contributes to the uncertainty of the minor positive effect.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+?	Promoting the circular economy will reduce the need for raw material extraction and disposal of wastes to landfill, which could otherwise adversely affect landscape character and quality. In addition, the policy seeks to ensure that there is provision for the sufficient inert waste disposal capacity within the County. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on enhancing the landscape. Effects of new waste management infrastructure will be dependent on their size, design and location, which contributes to the uncertainty of the minor positive effect.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+	This policy seeks to reduce waste generation as well as increase reuse, recycling and energy recovery, by permitting waste development that enables the transition to a more circular economy. This is considered to also encapsulate efficient water use, and a minor positive effect

SA Objective	SA Score	Justification
		is identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+?	Promoting the circular economy will reduce the need for raw material extraction in the County and disposal of waste to landfill, which could otherwise adversely affect flooding in the County. The policy supports the development of sustainable waste management facilities in the County to enable the transition to a more circular economy, although at this stage, the impact of new development on flood risk is uncertain.
16. Minimise noise, light, and air pollution.	+?	This policy will have a minor positive effect on this SA objective as promoting a circular economy will divert waste from landfills, and reduce waste management transportation which will reduce negative effects such as air pollution and noise. Effects will be dependent, however, on the size, design, type and location of new waste management infrastructure which are often in urban areas close to waste sources, which is unknown at this stage.
17. Value, protect and enhance soil quality and resources.	+	Promoting the circular economy will reduce the need for raw material extraction in the County and disposal of waste to landfill, which could otherwise adversely affect soil quality.

Policy W2: Solid Waste Management Requirements

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	This policy sets out the waste management requirements for household, agriculture, commercial, construction and demolition and hazardous wastes across the plan period. Such targets will encourage the expansion of waste management practices in the County, which will encourage waste management infrastructure development and in turn create employment.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	This policy sets out the waste management requirements for household, agriculture, commercial, construction and demolition and hazardous wastes across the plan period. This is likely to encourage waste management operators to invest in the County and establish new facilities, thereby expanding the contribution that waste management makes to the economy.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health	+?/-?	This policy sets out the waste management requirements for household, agriculture, commercial, construction and demolition and hazardous wastes across the plan period. The development of new facilities to manage every waste source could potentially lead to an increase in the transportation of these wastes across the County given that these wastes would

SA Objective	SA Score	Justification
geographically and demographically.		need to be segregated and transported individually, which could have negative implications for health. However, the policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. This will reduce the need to extract raw materials in the County, thereby reducing road traffic associated with extraction.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	This policy sets out the waste management requirements for household, agriculture, commercial, construction and demolition and hazardous wastes across the plan period, which in turn will create employment through the required development of new facilities. This will reduce employment deprivation, and a minor positive effect is identified for this SA objective.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+?/-?	This policy sets out the waste management requirements for household, agriculture, commercial, construction and demolition and hazardous wastes across the plan period. The development of new facilities to manage every waste source could potentially lead to an increase in the transportation of these wastes across the County given that these wastes would need to be segregated and transported individually. However, the policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. This will reduce the need to extract raw materials in the County, thereby reducing road traffic associated with extraction.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+?	The policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on enhancing the historic environment if this approach is adopted. Effects of new waste management infrastructure in order to achieve the management requirements will be dependent on their size, design and location, which contributes to the uncertainty of the minor positive effect.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+?	The policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on enhancing the character and built quality of settlements if this approach is adopted. Effects of new waste management infrastructure in order to achieve the management requirements will be dependent on their size, design and location, which contributes to the uncertainty of the minor positive effect.
8. Move treatment of waste up the waste hierarchy.	++	This policy sets out the waste management requirements for household, agriculture, commercial, construction and demolition and hazardous wastes across the plan period, and

SA Objective	SA Score	Justification
		makes provision for the reuse and recycling of waste, this moving waste further up the Waste Hierarchy. A significant positive effect is identified for this SA objective.
9. Promote sustainable use of mineral resources.	++	The policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025, which will reduce the need for raw mineral extraction, and provide a market for recycled and secondary aggregate. A significant positive effect is identified for this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/-?	This policy sets out the waste management requirements for household, agriculture, commercial, construction and demolition and hazardous wastes across the plan period. The development of new facilities to manage every waste source could potentially lead to an increase in the transportation of these wastes and associated emissions across the County, given that these wastes would need to be segregated and transported individually. However, the policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. This will reduce the need to extract raw materials in the County, thereby reducing emissions from road traffic and extraction. The policy also promotes the recovery of energy which has benefits for reducing emissions from fossil fuel electricity generation.
11. Promote effective restoration and appropriate after use of sites.	+?	The policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on this objective if this approach is adopted.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?	The policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on enhancing biodiversity if this approach is adopted. Effects of new waste management infrastructure in order to achieve the management requirements will be dependent on their size, design and location, which contributes to the uncertainty of the minor positive effect.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+?	The policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on enhancing landscape quality if this approach is adopted. Effects of new waste management infrastructure in order to achieve the management requirements will be dependent on their size, design and

SA Objective	SA Score	Justification
		location, which contributes to the uncertainty of the minor positive effect.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	0	This policy will not have a direct effect on this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+?	The policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. The supporting policy text highlights that inert waste can be used in the restoration of mineral workings, which could have a positive effect on this objective as the restoration of sites can provide opportunities for flood storage and management. Effects of new waste management infrastructure in order to achieve the management requirements will be dependent on their size, design and location, which contributes to the uncertainty of the minor positive effect.
16. Minimise noise, light, and air pollution.	+?/-?	This policy sets out the waste management requirements for household, agriculture, commercial, construction and demolition and hazardous wastes across the plan period. The development of new facilities to manage every waste source could potentially lead to an increase in the transportation of these wastes and associated noise and emissions, given that these wastes would need to be segregated and transported individually. However, the policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. This will reduce the need to extract raw materials in the County, thereby reducing emissions and noise from road traffic and extraction works. A mixed effect is therefore identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	+	The policy seeks to promote the recovery of materials from construction and demolition waste of at least 175,000 tonnes by 2025. This will reduce the need to extract raw materials in the County which will have benefits for protecting soil resources.

Policy W3: Agricultural Waste Management

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and	0	This policy will not have a direct effect on this SA objective.

SA Objective	SA Score	Justification
waste sectors.		
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	0	This policy will not have a direct effect on this SA objective.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+	The policy requires both EIA and non-EIA agricultural development to manage natural and non-natural wastes generated appropriately both on and off site. This is considered to help protect water quality through the safe management of fertilisers and manures, and a minor positive effect is identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	0	This policy will not have a direct effect on this SA objective.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+	This policy promotes anaerobic digestion whereby it is used as a waste management solution onsite. This will help to prevent the transfer of agricultural wastes to other off-site anaerobic plants via public road, thereby minimising traffic and associated pollution. A minor positive effect is therefore identified for this SA objective.
6. Value, protect and enhance the county's historic environment and cultural heritage.	0	This policy will not have a direct effect on this SA objective.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	This policy will not have a direct effect on this SA objective.
8. Move treatment of waste up the waste hierarchy.	+	This policy supports the use of anaerobic digestion on agricultural sites which has benefits for the reuse of waste as a fertiliser or as a source of energy or fuel. The efficient management of agricultural waste is therefore promoted through this policy, and a minor positive effect is identified for this SA objective.
9. Promote sustainable use of mineral resources.	0	This policy will not have a direct effect on this SA objective.

SA Objective	SA Score	Justification
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+	It is noted from the supporting text that the Committee on Climate Change's 2018 Report identifies that agricultural greenhouse gas emissions represented 10% of UK greenhouse gas emissions in 2016. This policy supports the use of anaerobic digestion on agricultural sites which can enable the reuse of waste as a source of energy or fuel. Therefore this has benefits for reducing the need for fossil fuels to operate agricultural premises, and will also help to offset emissions originally released.
11. Promote effective restoration and appropriate after use of sites.	0	This policy will not have a direct effect on this SA objective.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+	The policy requires both EIA and non-EIA agricultural development to manage natural and non-natural wastes generated appropriately both on and off site. This is considered to help protect water quality through the safe management of fertilisers and manures from being released into the water environment which has benefits for protecting aquatic species, and a minor positive effect is identified for this SA objective.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+	Anaerobic digestion has benefits for helping to manage agricultural waste onsite rather than relying on offsite disposal to landfill, which could otherwise have negative implications for landscape character and quality. A minor positive effect is therefore identified for this SA objective.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+	The policy requires both EIA and non-EIA agricultural development to manage natural and non-natural wastes generated appropriately both on and off site. This is considered to help protect water quality through the safe management of fertilisers and manures from being released into the water environment, and a minor positive effect is identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This policy will not have a direct effect on this SA objective.
16. Minimise noise, light, and air pollution.	+	It is noted from the supporting text that the Committee on Climate Change's 2018 Report identifies that agricultural greenhouse gas emissions represented 10% of UK greenhouse gas emissions in 2016. This policy supports the use of anaerobic digestion on agricultural sites which can enable the reuse of waste as a source of energy or fuel. Therefore this has benefits for reducing the need for fossil fuels to operate agricultural premises, and will also help to offset

SA Objective	SA Score	Justification
		emissions originally released, which has benefits for air pollution.
17. Value, protect and enhance soil quality and resources.	+	Anaerobic digestion has benefits for producing digestate which is potentially more effective than natural manure fertiliser, therefore the promotion of anaerobic digestion would have benefits for soil quality. The policy also requires both EIA and non-EIA agricultural development to manage natural and non-natural wastes generated appropriately both on and off site. This is considered to help protect soil quality through the safe management of fertilisers and manures.

Policy W4: Waste Water Management

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	This policy states that statutory water and sewerage undertakers will be granted planning permission to extend, upgrade or make provision for new infrastructure necessary to supply potable water and waste water services. This would have a positive effect for ongoing employment generation and maintenance in the waste water industry in Herefordshire, and a minor positive effect is identified for this SA objective.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	This policy will enable statutory water and sewerage undertakers to plan investment in Herefordshire and undertake their duty to supply potable water and provide waste water treatment services. A minor positive effect is therefore identified for this SA objective.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+	This policy states that statutory water and sewerage undertakers will be granted planning permission to extend, upgrade or make provision for new infrastructure necessary to supply potable water, which has benefits for health. A minor positive effect is identified for this SA objective.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	This policy supports the ongoing investment of waste water operators in Herefordshire which has benefits for reducing employment deprivation. A minor positive effect is therefore identified for this SA objective.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient	0	This policy will not have a direct effect on this SA objective.

SA Objective	SA Score	Justification
movement patterns in the County.		
6. Value, protect and enhance the county's historic environment and cultural heritage.	0	This policy will not have a direct effect on this SA objective.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	0	This policy will not have a direct effect on this SA objective.
8. Move treatment of waste up the waste hierarchy.	+	The purpose of waste water management is to enable the treatment and reuse of water as a valuable resource which complies with the waste hierarchy. A minor positive effect is therefore identified for this SA objective.
9. Promote sustainable use of mineral resources.	0	This policy will not have a direct effect on this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+	This policy states that statutory water and sewerage undertakers will be granted planning permission to extend, upgrade or make provision for new infrastructure necessary to supply potable water, and manage water resources effectively. This has benefits for ensuring that the impacts of climate change on water supply is carefully managed and planned for. The policy also supports the use of biogas as an energy source, which has benefits for reducing fossil fuel use in energy production.
11. Promote effective restoration and appropriate after use of sites.	0	This policy will not have a direct effect on this SA objective.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+	This policy states that statutory water and sewerage undertakers will be granted planning permission to extend, upgrade or make provision for new infrastructure necessary to supply potable water and waste water services. This has benefits for the aquatic environment by ensuring that watercourses are not polluted by raw waste materials.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	0	This policy will not have a direct effect on this SA objective.

SA Objective	SA Score	Justification
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	++	The purpose of waste water management (as promoted by this policy) is to enable the treatment and reuse of water as a valuable resource. A significant positive effect is therefore identified for this SA objective.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	0	This policy will not have a direct effect on this SA objective.
16. Minimise noise, light, and air pollution.	+	The policy supports the use of biogas as an energy source, which has benefits for reducing fossil fuel use in energy production. A minor positive effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	0	This policy will not have a direct effect on this SA objective.

Policy W5: Preferred Locations for Solid Waste Treatment Facilities

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The continued operation of existing waste facilities and the development of new waste facilities at either allocated sites, within the strategic employment areas or at other areas will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The continued operation of existing waste facilities and the development of new waste facilities at either allocated sites, within the strategic employment areas or at other areas will promote a circular economy through the development of new waste management infrastructure as well as encourage long-term investment in Herefordshire's waste sector . A minor positive effect is therefore identified for this SA objective due to the likely scale of development.
3. Protect and improve the health of the people of Herefordshire, and	-?	The continued operation of existing waste facilities and the development of new waste facilities at either allocated sites or at other areas will have an adverse effect on the amenity of local

SA Objective	SA Score	Justification
reduce disparities in health geographically and demographically.		<p>residents and communities as waste site development would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of waste around and from the site. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the health and amenity of nearby communities beyond the effects already experienced at operational industrial or employment sites.</p> <p>Effects are uncertain and will depend on the scale, design and restoration of waste sites which will not be known until the planning application stage.</p>
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	<p>The continued operation of existing waste facilities and the development of new waste facilities at either allocated sites, within the strategic employment areas or at other areas will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people which will help reduce employment deprivation in the county.</p>
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at either allocated sites or at other areas are likely to require considerable flows of road-based travel. Furthermore, a large percentage of the vehicle movements associated with waste development are heavy goods vehicles which are likely to be significant in volume. The further vehicles transporting waste have to travel along local roads the higher the potential for traffic and congestion as they are likely to travel more slowly on local roads. However, positive effects may be experienced as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce the transport distances of waste.</p> <p>Effects are uncertain and will depend on the scale, design, and proximity to sustainable transport modes and the primary road network which will not be known until the planning application stage.</p>
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may adversely impact on designated and undesignated heritage assets as well as buried archaeology. The development of new waste facilities at strategic employment sites is not expected to adversely impact on the historic environment beyond the effects already experienced at operational industrial or employment sites.</p> <p>Effects are uncertain and will depend on the location, scale, design and proximity and</p>

SA Objective	SA Score	Justification
		intervisibility with heritage assets, which will not be known until the planning application stage.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	-?	The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may adversely impact on the character of settlements and neighbourhoods. Effects are uncertain dependent on the design of the development, the contribution the land makes to the local distinctiveness and setting of an area, and at existing sites this is also dependent on whether effects have already been addressed through conditions relating to the existing planning permission.
8. Move treatment of waste up the waste hierarchy.	++?	<p>The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas could promote improved waste management, therefore driving waste up the waste hierarchy and contributing to a circular economy. Additionally, waste facilities at strategic employment sites may provide opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will contribute to the circular economy at a materials level.</p> <p>Effects are uncertain, as active sites may be used for different wastes or different technologies than are currently present.</p>
9. Promote sustainable use of mineral resources.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may sterilise mineral resources and restrict the availability of resources in the county if located within a Preferred Area of Search or a Mineral Safeguarding Area. The development of new waste facilities at strategic employment sites is not expected to adversely impact on mineral resources beyond the effects already experienced at operational industrial or employment sites.</p> <p>As such, minor negative effects are identified. These are uncertain as effects are dependent on the location of development and if effects have already been addressed through conditions relating to the existing planning permission on operational sites.</p>
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/-?	The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may adversely impact climate change due to the likelihood of local traffic generation and therefore emissions resulting from waste facilities, although this is likely to have been addressed through the conditions to the existing planning permission at active sites. Additionally, a minor positive effect is also identified as sites in proximity to sustainable transport links will enable employees

SA Objective	SA Score	Justification
		<p>to access the site without having to rely on private car, thereby reducing local traffic emissions, and development at employment sites may provide opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce greenhouse gases associated with the transport of waste and enable more efficient operations.</p> <p>Overall, mixed uncertain minor positive and uncertain minor negative effects are identified.</p>
11. Promote effective restoration and appropriate after use of sites.	+?	<p>The NPPG on Waste requires landfill sites to be restored to beneficial after-uses at the earliest opportunity and to high environmental standards. The restoration of other types of waste management sites when they are no longer required may also be undertaken however, this is not promoted in the NPPG on Waste and would be dependent on when the waste facility ceased to operate which could be any number of years. Therefore, the continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may have a minor positive effect with regards to restoration.</p>
12. Value, maintain, restore and expand county biodiversity and geodiversity.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may adversely impact on designated and undesignated biodiversity and geodiversity assets. The development of new waste facilities at strategic employment sites is not expected to adversely impact on biodiversity and geodiversity beyond the effects already experienced at operational industrial or employment sites.</p> <p>Effects are uncertain, dependent on the design and operation of waste treatment activities and if these are likely to have already been addressed through conditions relating to the existing planning permission of operational sites.</p>
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may adversely impact landscape if located in proximity to designated landscapes, within areas of high sensitivity to change, within green infrastructure corridors or in areas containing open space parks or gardens. The development of new waste facilities at strategic employment sites is not expected to adversely impact on landscape beyond the effects already experienced at operational industrial or employment sites.</p> <p>Effects are uncertain, dependent on the location, design and operation of waste treatment activities and if these are likely to have already been addressed through conditions relating to</p>

SA Objective	SA Score	Justification
		the existing planning permission of operational sites.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may adversely impact water if located in proximity to designated or vulnerable waterbodies, or within Source Protection Zones. Additionally, waste facilities require water resource use and may adversely affect water supply. The development of new waste facilities at strategic employment sites is not expected to adversely impact on water beyond the effects already experienced at operational industrial or employment sites.</p> <p>Effects are uncertain, dependent on the hydrological connectivity of sites with waterbodies and if these are likely to have already been addressed through conditions relating to the existing planning permission of operational sites.</p>
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may adversely impact flood risk if located within Flood Zone 3. The development of new waste facilities at strategic employment sites is not expected to adversely impact on flooding beyond the effects already experienced at operational industrial or employment sites.</p> <p>Effects are uncertain as these are dependent on the location and type of development and if effects have already been addressed through conditions relating to the existing planning permission on operational sites.</p>
16. Minimise noise, light, and air pollution.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may adversely impact pollution if sites are likely to generate traffic within AQMAs or are located in proximity to sensitive receptors that could be adversely affected by noise, air or light pollution resulting from development of the site. The development of new waste facilities at strategic employment sites is not expected to adversely impact on pollution beyond the effects already experienced at operational industrial or employment sites.</p> <p>Effects are uncertain as these are dependent on the location and type of development and if effects have already been addressed through conditions relating to the existing planning permission on operational sites.</p>
17. Value, protect and enhance soil	-?	The continued operation of existing waste facilities and the development of new waste facilities at allocated sites, within the strategic employment areas or at other areas may adversely

SA Objective	SA Score	Justification
quality and resources.		<p>impact soil if located on green field or high quality agricultural land that could be lost to development. The development of new waste facilities at strategic employment sites is not expected to adversely impact on soil beyond the effects already experienced at operational industrial or employment sites.</p> <p>Effects are uncertain as these are dependent on the location of development and if effects have already been addressed through conditions relating to the existing planning permission on operational sites.</p>

Policy W6: Preferred Locations for Construction, Demolition and Excavation Waste Management Facilities

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people. Therefore, a minor positive effect rather than a significant positive effect is expected as these beneficial effects are most likely to be experienced in the short and medium term, rather than in the long-term.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+	The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites will promote a circular economy through the development of new waste management infrastructure as well as encourage long-term investment in Herefordshire's waste sector . A minor positive effect is therefore identified for this SA objective due to the likely scale of development.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites will have an adverse effect on the amenity of local residents and communities as waste site development would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with the transport of waste around and from the site.</p> <p>Effects are uncertain and will depend on the scale, design and restoration of waste sites which will not be known until the planning application stage.</p>

SA Objective	SA Score	Justification
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites will have a direct and indirect effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in job creation for local people which will help reduce employment deprivation in the county.
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+/-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites are likely to require considerable flows of road-based travel. Furthermore, a large percentage of the vehicle movements associated with waste development are heavy goods vehicles which are likely to be significant in volume. The further vehicles transporting waste have to travel along local roads the higher the potential for traffic and congestion as they are likely to travel more slowly on local roads. However, positive effects may be experienced as there may be opportunities for symbiotic relationships between waste management, engineering, manufacturing and research industries which will help to reduce the transport distances of waste.</p> <p>Effects are uncertain and will depend on the scale, design, and proximity to sustainable transport modes and the primary road network which will not be known until the planning application stage.</p>
6. Value, protect and enhance the county's historic environment and cultural heritage.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites may adversely impact on designated and undesignated heritage assets as well as buried archaeology.</p> <p>Effects are uncertain and will depend on the location, scale, design and proximity and intervisibility with heritage assets, which will not be known until the planning application stage.</p>
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites may adversely impact on the character of settlements and neighbourhoods.</p> <p>Effects are uncertain dependent on the design of the development, the contribution the land makes to the local distinctiveness and setting of an area, and at existing sites this is dependent on whether effects have already been addressed through conditions relating to the existing planning permission.</p>
8. Move treatment of waste up the waste hierarchy.	++?	The continued operation of existing waste facilities and the development of new waste facilities at existing minerals sites that are recovering construction, demolition and excavation waste

SA Objective	SA Score	Justification
		<p>which would be expanded, as well as former minerals sites that have the potential to treat CD&E waste, and the proposed quarry sites that are identified in the HMWLP as appropriate locations for the sustainable disposal of inert waste, would all have a significant positive effect on the recovery of waste.</p> <p>Effects are uncertain as active sites may be used for different wastes or different technologies than are currently present.</p>
9. Promote sustainable use of mineral resources.	-?	The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites may sterilise mineral resources and restrict the availability of resources in the county by being located within a Preferred Area of Search or a Mineral Safeguarding Area. As such, minor negative effects are identified. These are uncertain as effects may have already been addressed through conditions relating to the existing planning permission on active sites.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to the problem.	+?/-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing minerals sites may adversely impact climate change due to the likelihood of local traffic generation and therefore emissions resulting from waste facilities, although this is likely to have been addressed through the conditions to the existing planning permission at active sites. Additionally, a minor positive effect is also identified as sites in proximity to sustainable transport links will enable employees to access sites without having to rely on private cars, thereby reducing local traffic emissions, and there is also potential to treat CD&E waste and inert waste onsite, therefore reducing the distance waste has to travel to be recovered and the associated transport-related emissions.</p> <p>Overall, mixed uncertain minor positive and uncertain minor negative effects are identified.</p>
11. Promote effective restoration and appropriate after use of sites.	++?	The lifetime of the waste treatment facility at mineral workings is likely to be limited to the lifetime of the quarry. As NPPF (2018) states that mineral sites should be restored at the earliest convenience, taking account of aviation safety, to a high environmental standard, a significant positive effect is identified for waste facilities at mineral sites as the NPPF requires restoration to result in land of equal value being returned following the working of a site. Therefore the continued operation of existing waste facilities and the development of new waste facilities at existing minerals sites may have a significant positive effect with regards to restoration, dependent on the type of restoration proposed and eventually developed on sites.
12. Value, maintain, restore and	-?	The continued operation of existing waste facilities and the development of new waste facilities

SA Objective	SA Score	Justification
expand county biodiversity and geodiversity.		<p>at existing and former minerals sites may adversely impact on designated and undesignated biodiversity and geodiversity assets.</p> <p>Effects are uncertain, dependent on the design and operation of waste treatment activities and if these are likely to have already been addressed through conditions relating to the existing planning permission of operational sites.</p>
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites may adversely impact landscape if located in proximity to designated landscapes, within areas of high sensitivity to change, within green infrastructure corridors or in areas containing open space parks or gardens.</p> <p>Effects are uncertain, dependent on the location, design and operation of waste treatment activities and if these are likely to have already been addressed through conditions relating to the existing planning permission of operational sites.</p>
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites may adversely impact water if located in proximity to designated or vulnerable waterbodies, or within Source Protection Zones. Additionally, waste facilities require water resource use and may adversely affect water supply.</p> <p>Effects are uncertain, dependent on the hydrological connectivity of sites with waterbodies and if these are likely to have already been addressed through conditions relating to the existing planning permission of operational sites.</p>
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites may adversely impact flood risk if located within Flood Zone 3.</p> <p>Effects are uncertain as these are dependent on the location and type of development and if effects have already been addressed through conditions relating to the existing planning permission on operational sites.</p>
16. Minimise noise, light, and air pollution.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites may adversely impact pollution if sites are likely to generate traffic within AQMAs or are located in proximity to sensitive receptors that could be adversely affected by noise, air or light pollution resulting from development of the site.</p> <p>Effects are uncertain as these are dependent on the location and type of development and if</p>

SA Objective	SA Score	Justification
		effects have already been addressed through conditions relating to the existing planning permission on operational sites.
17. Value, protect and enhance soil quality and resources.	-?	<p>The continued operation of existing waste facilities and the development of new waste facilities at existing and former minerals sites may adversely impact soil if located on green field or high quality agricultural land that could be lost to development.</p> <p>Effects are uncertain as these are dependent on the location of development and if effects have already been addressed through conditions relating to the existing planning permission on operational sites.</p>

Policy W7: Waste Management Operations

SA Objective	SA Score	Justification
1. Support, maintain or enhance the provision of employment opportunities in the minerals and waste sectors.	+	This policy supports the development of waste management facilities for reuse, recycling, recovery and also site reclamation, all of which will have positive benefits for generating employment in Herefordshire's waste management industry.
2. Maintain or enhance conditions that enable a sustainable economy and continued investment.	+?	The promotion of the development of waste management facilities through this policy will create investor confidence and thus encourage investors to develop new infrastructure, although the strict requirements on the capabilities of new facilities could discourage investment whereby these have implications on development costs. A minor positive uncertain effect is therefore identified for this SA objective.
3. Protect and improve the health of the people of Herefordshire, and reduce disparities in health geographically and demographically.	+?	This policy will have a minor positive effect on this objective as it provides the opportunity for the introduction green infrastructure as part of site restoration by means of landfill. This may have benefits for encouraging recreational use of the site, although this is not known at this stage.
4. Reduce poverty and social inclusion by closing the gap between the most deprived areas in the county and the rest of the county.	+	This policy supports the development of waste management facilities for reuse, recycling, recovery and also site reclamation, all of which will have positive benefits for generating employment in Herefordshire's waste management industry, thereby reducing employment deprivation.

SA Objective	SA Score	Justification
5. Reduce road traffic, congestion and pollution, and promote sustainable modes of transport and efficient movement patterns in the County.	+	This policy supports the development of waste management facilities for reuse, recycling, recovery and overall transition to a more circular economy, which has benefits for reducing traffic associated with new raw material extraction.
6. Value, protect and enhance the county's historic environment and cultural heritage.	+?	This policy will have a minor positive effect on this objective as it provides the opportunity for site restoration by means of landfill, which could have positive effects on the historic environment, although this is not known at this stage. The policy also supports waste developments which do not necessarily meet all the requirements of the policy, but which result in a local benefit and avoidance of adverse impacts. This is assumed to mean the protection of the historic environment.
7. Value, protect and enhance the character and built quality of settlements and neighbourhoods.	+?	This policy will have a minor positive effect on this objective as it provides the opportunity for site restoration by means of landfill, which could have positive effects on the character and quality of settlements, although this is not known at this stage. The policy also supports waste developments which do not necessarily meet all the requirements of the policy, but which result in a local benefit and avoidance of adverse impacts. This is assumed to mean the protection or enhancement of the character of settlements.
8. Move treatment of waste up the waste hierarchy.	++?	This policy sets out the requirements for the development of waste management facilities for reuse, recycling, recovery and also site reclamation, which enable the delivery of the waste hierarchy and achieve the circular economy in Herefordshire. The policy also supports waste developments which do not necessarily meet all the requirements of the policy, but which result in a local benefit and avoidance of adverse impacts. The effect of this policy will therefore depend on the developments that come forward and their abilities to contribute to the waste circular economy. An uncertain significant positive effect is therefore identified for this SA objective.
9. Promote sustainable use of mineral resources.	+	This policy will have a minor positive effect on this objective as it provides the opportunity for site restoration by means of inert waste disposal. A minor positive effect is identified for this SA objective.
10. Reduce Herefordshire's vulnerability to the impacts of climate change as well as its contribution to	+	This policy supports the development of waste management facilities for energy recovery which enable the resultant heat and power to be utilised, thereby reducing the need for fossil fuel usage. A minor positive effect is identified for this SA objective.

SA Objective	SA Score	Justification
the problem.		
11. Promote effective restoration and appropriate after use of sites.	+	This policy will have a minor positive effect on this objective as it provides the opportunity for site restoration by means of landfill.
12. Value, maintain, restore and expand county biodiversity and geodiversity.	+?	This policy will have a minor positive effect on this objective as it provides the opportunity for site restoration by means of landfill, which could have positive effects on biodiversity, although this is not known at this stage. The policy also supports waste developments which do not necessarily meet all the requirements of the policy, but which result in a local benefit and avoidance of adverse impacts. This is assumed to mean the protection of biodiversity and geodiversity.
13. Value, protect, enhance and restore the landscape quality of Herefordshire, including its rural areas and open spaces.	+?	This policy will have a minor positive effect on this objective as it provides the opportunity for site restoration by means of landfill, which could have positive effects for enhancing landscape character and providing open space, although this is not known at this stage. The policy also supports waste developments which do not necessarily meet all the requirements of the policy, but which result in a local benefit and avoidance of adverse impacts. This is assumed to mean the protection, enhancement or restoration of the landscape.
14. Value, protect and enhance the quality of watercourses and maximise the efficient use of water.	+	The policy supports waste developments which do not necessarily meet all the requirements of the policy, but which result in a local benefit and avoidance of adverse impacts. This is assumed to mean the protection of watercourses.
15. Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	+?	This policy will have a minor positive effect on this objective as it provides the opportunity for site restoration by means of landfill, which could have positive effects for the storage of waste water, although this is not known at this stage. The policy also supports waste developments which do not necessarily meet all the requirements of the policy, but which result in a local benefit and avoidance of adverse impacts. This is assumed to incorporate flood risk.
16. Minimise noise, light, and air pollution.	+	This policy supports the development of waste management facilities for energy recovery which enable the resultant heat and power to be utilised, thereby reducing the need for fossil fuel usage and resultant emissions. A minor positive effect is identified for this SA objective.
17. Value, protect and enhance soil quality and resources.	+?	This policy will have a minor positive effect on this objective as it provides the opportunity for site restoration by means of landfill, which could have positive effects for the restoration of land and soil to a productive state, although this is not known at this stage. The policy also supports

SA Objective	SA Score	Justification
		waste developments which do not necessarily meet all the requirements of the policy, but which result in a local benefit and avoidance of adverse impacts. This is assumed to mean the protection of soil quality and resources.

Appendix 9

Consultation Responses received on the SA Scoping Report

Consultation Authority	Comment	Action (how comments have been addressed in this SA Report)
Natural England	<p>Natural England has not reviewed the plans listed. However, we advise that the following types of plans relating to the natural environment should be considered where applicable to your plan area:</p> <ul style="list-style-type: none"> • Green infrastructure strategies • Biodiversity plans • Rights of Way Improvement Plans • River basin management plans • AONB and National Park management plans. • Relevant landscape plans and strategies. 	<p>Noted. A comprehensive review of Plans/Programmes/Policies has been undertaken which includes the types of plans referred to by Natural England (see Chapter 3 and Appendix 1).</p>
	<p>Section 3.34 states that there are 685 Local Wildlife Sites and 122 Local Geological Sites in Herefordshire, but in the adopted Herefordshire Core Strategy Section 2 Herefordshire Context - Environmental quality – key facts states different numbers.</p>	<p>Noted. The figures stated in the Scoping Report are confirmed as correct using Herefordshire Council's website and ArcGIS.</p>
	<p>Key sustainability issues - We note that there is no reference to biodiversity net gain. We recommend that biodiversity net gain should be referred to in line the National Planning Policy Framework.</p>	<p>Noted and referred to as a key sustainability issue.</p>
	<p>SA framework - There are no questions relating to maintaining and improving geodiversity, avoiding irreversible losses or creating, extending or enhancing Local Geological Sites.</p>	<p>Noted and included in the revised SA framework.</p>
	<p>SA framework - We advise adding reference to protecting the quality as well as the quantity of ground and surface water.</p>	<p>Noted and included in the revised SA framework.</p>
	<p>SA framework - We advise adding in an appraisal question about protecting soils to minimise loss and damage and also minimising all forms of contamination to soils.</p>	<p>Noted and included in the revised SA framework.</p>

Consultation Authority	Comment	Action (how comments have been addressed in this SA Report)
Environment Agency	<p>Relevant Plans and Programmes: We note, with reference to Local Plans and Programmes, mention of the Herefordshire Local Plan (Core Strategy) which was adopted in 2015 and on which we provided detailed comment. With specific reference to flood risk the Core Strategy was supported by the 2009 Strategic Flood Risk Assessment (SFRA), as stated in Table 2.3, which was augmented by a basic update prior to adoption of the Plan. However, it is understood that Herefordshire Council are now in the process of producing a more thorough update to the SFRA which will inform future Development Plan Documents, such as the Minerals and Waste Plan and the Hereford Area Plan. This point is picked up in paragraph 3.46.</p>	<p>Chapter 3 has been updated to include reference to the SFRA undertaken in 2009, its update in 2015, and the SFRA which will be published for consultation in 2018.</p>
	<p>Key Sustainability Issues: We would state that Groundwater Vulnerability should be an important consideration moving forward with the Plan.</p>	<p>Noted and included as a key sustainability issue.</p>
	<p>Sustainability Appraisal Framework: With reference to Climate Change (SA Framework Objective 14) please note that the National Planning Practice Guidance (NPPG) refers to Environment Agency guidance on considering climate change in planning decisions which is available online: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances</p>	<p>Noted.</p>
	<p>Sustainability Appraisal Framework: The Plan could look at 'ensuring flood risk reduction/improvement to the flood regime'.</p>	<p>Noted and a new sub-objective has been included for SA objective 15.</p>
	<p>Limitations: Our indicative Flood Map for Planning (Rivers and sea) does not include climate change allowances and primarily shows potential flooding from Main Rivers. In considering flood risk data, the limitations of our Flood Map should be acknowledged. As stated above, the Council's SFRA is currently being reviewed and updated to reflect the latest climate change allowances.</p> <p>Some un-modelled or ordinary watercourses have not been</p>	<p>Noted and included in Chapter 2 under the heading 'Difficulties Encountered and Data Limitations'.</p>

Consultation Authority	Comment	Action (how comments have been addressed in this SA Report)
	<p>mapped on our Flood Map (catchments smaller than 3km² are not represented. Whilst the smaller catchments do not have an associated flood extent based on our flood map, this does not mean there is no flood risk associated with the watercourse).</p>	
	<p>Review of Plans and Programmes (Appendix 1): Clarification on timescales for the production of the new SFRA should be sought and reference should be included in Appendix 1 if appropriate.</p>	<p>Noted. The SFRA will be published for consultation in 2018 and will be referred to in the next iteration of the SA Report.</p>