



Draft Cumbria Minerals and Waste Local Plan 2015-2030

Sustainability Appraisal Report

(incorporating requirements of the EU Strategic Environmental Assessment Directive)

Regulation 19 Consultation Publication version

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CONTENTS

1	INTRODUCTION	5
1.1	Structure of this report	5
1.2	The Minerals and Waste Local Plan	5
1.3	SA/SEA	7
1.4	Sustainability Appraisal work to date on the MWLP	8
2	THE CONTEXT FOR THE PLAN	12
2.1	Review of relevant plans and programmes	12
2.2	Overview of the sustainability baseline	15
2.3	Population	15
2.4	Human Health	16
2.5	Biodiversity	16
2.6	Built and historic environment	17
2.7	Landscape character and designations	18
2.8	Water quality and resources	19
2.9	Climate change and energy	20
2.10	Transport	20
2.11	Air quality	21
2.12	Economy and employment	22
2.13	Strategic Infrastructure	23
2.14	Waste management	24
2.15	Aggregate minerals	26
2.16	Other minerals	27
2.17	Key sustainability issues	28
3	THE SA FRAMEWORK AND METHODOLOGY	32
3.1	Sustainability Appraisal Framework	32
3.2	Compatibility of SA and MWLP objectives	35
3.3	Approach to appraisals	37
3.4	Strategic alternatives	38
3.5	Difficulties encountered	39
4	ASSESSMENT OF THE VISION, OVERALL PLAN STRATEGY, STRATEGIC OBJECTIVES AND STRATEGIC POLICIES	40
4.1	Assessment of Vision, Plan Strategy and Strategic Objectives	40
4.2	Strategic Policies	40
4.3	Strategic alternatives	41
	Table 4.3: Conclusion of the assessments of the Strategic Policies	44
5	ASSESSMENT OF THE DEVELOPMENT CONTROL POLICIES	47
5.1	Development Control Policies	47
5.2	Strategic alternatives	47
	Table 5.2: Conclusions of the assessments of the Development Control Policies	49
6	ASSESSMENT OF THE SITE ALLOCATION POLICIES	53
6.1	Waste management sites	53
6.2	Mineral sites and associated infrastructure	54
6.3	Strategic alternatives	69

7	CUMULATIVE, SECONDARY AND SYNERGISTIC EFFECTS	70
8	MITIGATION PROPOSALS.....	71
	8.1 Mitigation and suggested changes to the MWLP	71
9	MONITORING THE PLAN.....	80
	9.1 Monitoring requirements.....	80
	9.2 Monitoring	80
	9.3 Monitoring provisions in the Local Plan	81
10	NEXT STEPS.....	83

APPENDICES

APPENDIX 1:	RELEVANT PLANS AND PROGRAMMES
APPENDIX 2:	BASELINE DATA SOURCES
APPENDIX 3:	DETAILED ASSESMENT OF THE STRATEGIC POLICIES
APPENDIX 4:	DETAILED ASSESSMENT OF DEVELOPMENT CONTROL POLICIES
APPENDIX 5:	DETAILED ASSESSMENT OF SITES
APPENDIX 6:	OVERVIEW OF STRATEGIC OPTIONS CONSIDERED FOR REGULATION 18 DRAFT MWLP 2015
APPENDIX 7:	AUDIT TRAIL OF OPTIONS CONSIDERED FOR THE ADOPTED CORE STRATEGY AND GENERIC DEVELOPMENT CONTROL POLICIES DPD
APPENDIX 8:	COPY OF ADOPTED CORE STRATEGY AND GENERIC DEVELOPMENT CONTROL POLICIES DPD APPRAISALS (2008)

A Non-Technical Summary of this Sustainability Appraisal Report is also provided as a separate document.

1 INTRODUCTION

1.1 Structure of this report

1.1.1 This is a Sustainability Appraisal (SA) report to accompany the draft Cumbria Minerals and Waste Local Plan (referred to from now as the 'MWLP') prepared under regulation 19 of the Town and County Planning (Local Planning) (England) Regulations 2012 (TCPR 2012). The role of the SA is to support the plan making process and the generation of options for managing future minerals and waste development in the County.

1.1.2 The report is set out as follows:

- This section (section 1) sets out the background to the MWLP and the requirements for Sustainability Appraisal and Strategic Environmental Assessments of Local Plans
- Section 2 sets out the context for the MWLP and the Sustainability Appraisal, including a review of relevant plans and programmes, the sustainability baseline and the sustainability issues for Cumbria
- Section 3 discusses the SA framework and methodology for this Sustainability Appraisal
- Section 4 summarises the outcome of the SA of the draft MWLP and the strategic alternatives to the proposed approach
- Section 5 sets out the proposed monitoring framework for the Sustainability Appraisal
- Section 6 sets out the next steps in relation to MWLP and SA

1.2 The Minerals and Waste Local Plan

1.2.1 Cumbria County Council (CCC) is the statutory planning authority for all minerals and waste management development within Cumbria, but outside the National Parks. The Planning and Compulsory Purchase Act (PCPA), as amended by the Localism Act of 2011, requires the County Council to develop a Minerals and Waste Local Plan to guide minerals and waste planning in the Plan area.

1.2.2 The MWLP will be a single document comprising three sections: Strategic Policies, Development Control Policies and Site Allocations Policies (together with a Policies Map). The Strategic Policies will set out the preferred overall approach to future minerals and waste development in Cumbria. The other policies will set out how this will be implemented through the consideration of planning applications, and by identifying sites or areas of land where provision can be made for the new minerals and waste management developments required or that need to be safeguarded.

- 1.2.3 Until 2012, the County Council were working towards the preparation of the Cumbria Minerals and Waste Development Framework Documents. The Core Strategy and Generic Development Control Policies Development Plan Documents (DPDs) were adopted in April 2009. Significant work had also been underway to prepare the Site Allocations Policies and Proposals Map and, whilst both documents were adopted by the County Council in January 2011, they were subsequently quashed by the High Court. They were resubmitted to the Secretary of State in January 2012. However, in March 2012 the Government published the National Planning Policy Framework (NPPF) and changed the development plan system. In view of the implications of this and the new system of Local Plans, the County Council withdrew the Site Allocations Policies and Proposals Map from examination and work commenced on the MWLP.
- 1.2.4 The NPPF provided a 12-month transition period, from the date of its publication, for Local Authorities to revise their development plan documents to take account of the policies in the NPPF, either through a partial review or by preparing a new plan. A first draft Cumbria MWLP was prepared and consulted on in 2013. This document was, to all intents and purposes, a partial review of the adopted Core Strategy and Development Control Policies documents, whilst building on the withdrawn draft Site Allocations Policies.
- 1.2.5 Following the consultation on the 2013 draft MWLP the County Council decided that further, and in some areas significant, changes were needed to be made to the proposed MWLP. This was driven by several factors, including the introduction of new or revised national guidance and legislation; the undertaking of research and the preparation of a more robust Evidence Base; factual updates; and the need to take account of and address comments received during the 2013 consultation. However, for some policy areas the proposed approach is still essentially a partial review of the adopted Core Strategy and Development Control Policies. Therefore, the County Council repeated the Regulation 18 consultation on the preferred approach to the Cumbria MWLP, in spring 2015.
- 1.2.6 This Sustainability Appraisal supports the Publication version of the Local Plan (Regulation 19), which is to be submitted to the Secretary of State following consultation. The Regulation 19 version has been prepared following consideration of responses received on the draft Minerals and Waste Local Plan (Regulation 18), which took place between 11 March and 11 May 2015. The consultation provided an opportunity for stakeholders and communities to comment on the draft Plan and its proposed policies and site allocations. Arising from several responses to that consultation, a further, Supplementary Sites consultation, was held in October and November 2015; this gave the opportunity for comment on a number of additional sites and boundary changes that had been put forward. Details of the additional sites

sustainability appraisal is included in 'Supplementary Sites Consultation: Sustainability Appraisal' (October 2015).

1.3 SA/SEA

- 1.3.1 Section 19(5) of the PCPA requires a Local Planning Authority who is preparing a Development Plan Document (DPD) to undertake SA throughout its production, in order to ensure that it is fully consistent with, and helps to implement, the principles of sustainable development. The SA performs a key role in providing a sound evidence base for the Plan and provides a means of demonstrating to decision makers, and the public, that it is the most appropriate given reasonable alternatives. SA is carried out and published at each key stage in the preparation of a DPD.
- 1.3.2 In parallel with this, the European Directive 2001/42/EC "*on the assessment of the effects of certain plans and programmes on the environment*" (the Strategic Environmental Assessment or 'SEA Directive') was transposed into United Kingdom law by the Environmental Assessment of Plans and Programmes Regulations 2004 (the 'SEA Regulations') and establishes the statutory obligation to undertake SEA with regard to any plan that:
- is "prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and is required by legislative, regulatory or administrative provisions" (Article 2(b)); and
 - concerns "town and country planning or land use... which sets the framework for future development consent of projects" (Article 5.2(a)).
- 1.3.3 The principal purpose of SEA is to ensure that appropriate consideration is given to the likely significant environmental effects of the implementation of a Plan. An Environmental Report is required to be published alongside the version of the final draft of the plan or programme being developed. SA extends the scope of assessment so that environmental effects are considered in parallel with social and economic impacts, in order for the overall implications of the Plan to be subject to an integrated evaluation. Although SA and SEA are distinct processes, many of their requirements overlap and, as a result, the Government has issued guidance advising that an integrated approach to both assessments should be undertaken during the preparation of a DPD.
- 1.3.4 The sustainability assessments carried out at each stage in the preparation of a DPD are used to inform the preparation of the final Environmental Report, which is required to be published alongside the final proposed version of a DPD. This SA report will be used to inform the preparation of the Environmental Report to accompany the pre-submission draft Cumbria MWLP that will be prepared under Regulation 19 of the TCPR 2012. Throughout this report, all references to SA should be taken to also include the requirements of European Directive 2001/42/EC.

1.4 Sustainability Appraisal work to date on the MWLP

- 1.4.1 An SA report was prepared to accompany the first draft of the Minerals and Waste Local Plan in 2013. This built upon the SA work undertaken during the preparation of the previous Minerals and Waste Development Framework (MWDF) – the adopted Core Strategy and adopted Generic Development Control Policies (2009), and the withdrawn Site Allocations Policies (2012).
- 1.4.2 An SA report was published in March 2015, to accompany the second consultation on the County Council's preferred options for the MWLP. In October 2015, an SA was also prepared for the consultation on Supplementary Sites, which had been put forward in response to the full MWLP consultation that took place March to May 2015. Table 1.1 sets out all the SA documents prepared.

Table 1.1 Sustainability Appraisal Reports 2006-2015

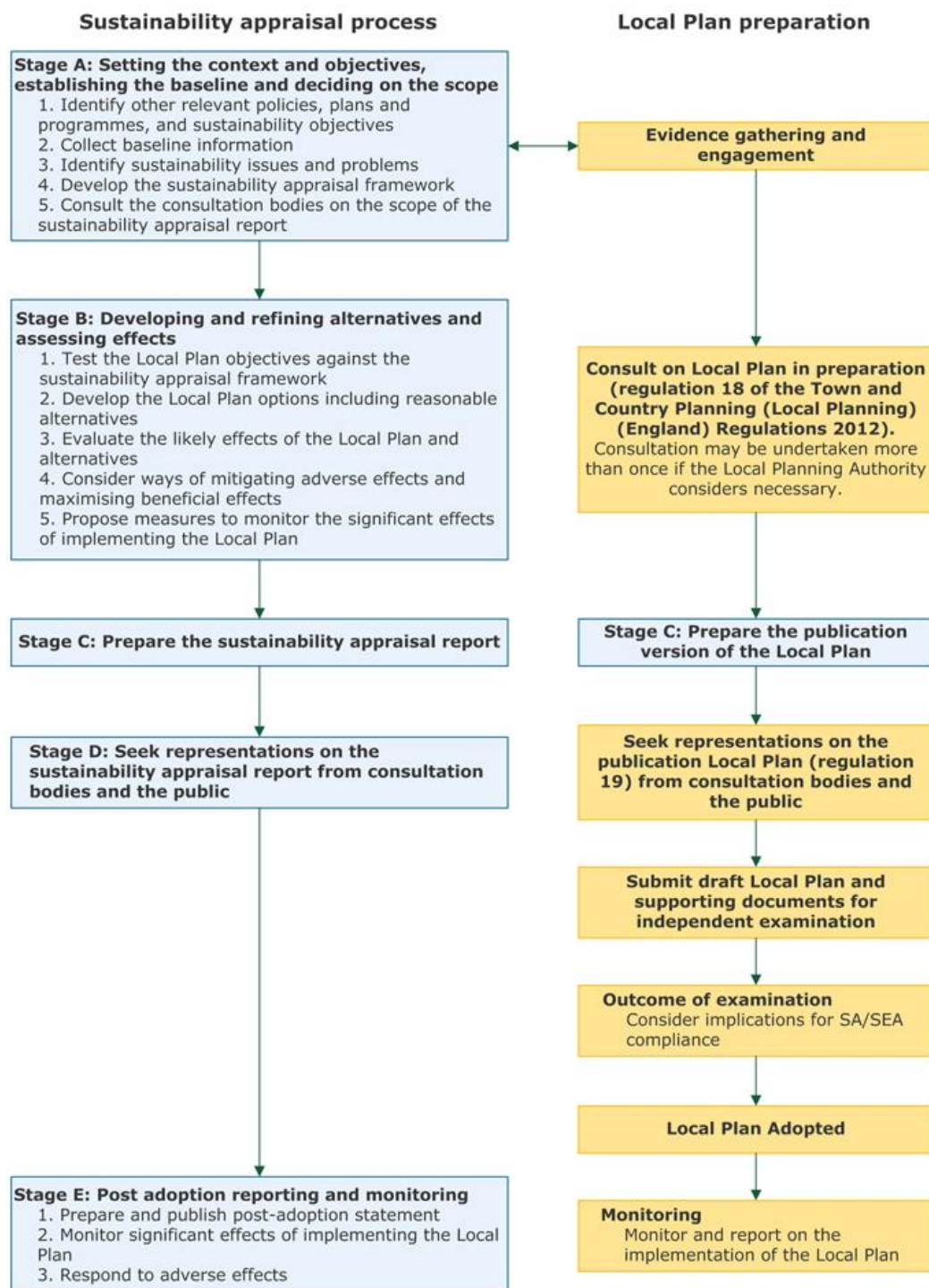
MWDF	
Sustainability Appraisal Scoping Report	July 2006
Sustainability Appraisal Stage 1 Report and Appendices: Issues and Options	November 2006
Sustainability Appraisal Site Selection Criteria for Waste Management Facilities	November 2006
Sustainability Appraisal Stage 2 Report and Appendices: Preferred Options for Core Strategy, Site Allocations and Generic Development Control Policies	February 2007
Sustainability Appraisal Stage 2.1 Report: Changes to the Preferred Options for Core Strategy	October 2007
Sustainability Appraisal Report and Appendices: Submission Version for Core Strategy and Generic Development Control Policies	February 2008
Sustainability Appraisal Regulation 30: Site Allocations Policies	April 2010
Sustainability Appraisal Regulation 30: Resubmitted Site Allocations Policies	January 2012
MWLP	
Sustainability Appraisal Regulation 18: draft Cumbria Minerals and Waste Local Plan (2013-2028)	February 2013
Sustainability Appraisal repeated Regulation 18: draft Cumbria Minerals and Waste Local Plan (2014-2029)	March 2015
Sustainability Appraisal Regulation 18: Supplementary Sites Consultation	October 2015

1.5 The SA/SEA process

- 1.5.1 The process for undertaking SEA is defined in the document '*A Practical Guide to the Strategic Environmental Assessment Directive*'. The initial stages involved in undertaking SA (incorporating SEA) are stages A and B, as shown in Figure 1.1. Stages A and B culminate in the preparation of the Environmental Report, summarising the predicted effects of the Plan and their relative significance, and proposing appropriate mitigation. There are three subsequent stages:
- Stage C: preparing the SA report;

- Stage D: seeking representations on the SA report from the nominated statutory bodies, the public and other stakeholders;
- Stage E: post adoption reporting monitoring and reporting on the performance of the Plan.

Figure 1.1: The Sustainability Appraisal Process



1.5.2 Planning Practice Guidance¹ that accompanies the NPPF, also sets out in detail how Sustainability Appraisal should be applied in the preparation of

¹ <http://planningguidance.planningportal.gov.uk/blog/guidance/strategic-environmental-assessment-and-sustainability-appraisal/>

DPDs. Figure 1.1 shows the key stages of the SA process, and the interaction between the Plan preparation and the process.

- 1.5.3 Undertaken in parallel with Plan preparation, SA is an iterative process. Stage B may be undertaken more than once as the options are assessed and modified to improve their performance against the SA Objectives established in Stage A4, and it may be necessary to repeat parts of Stage A if the SA occurs over a substantial period. This SA Report, presents the results of the Sustainability Appraisal of the Regulation 19 MWLP and forms part of the work under Stage C.
- 1.5.4 The SEA Directive sets out specific requirements that must be included in the Environmental Report to accompany the final draft of the plan or programme in development, and provides specific information relating to the assessment. Table 1.2 identifies these requirements and shows how these requirements are being met for the MWLP through this report, and how this will be carried through to the next stage of the Plan.

1.6 Related assessments

- 1.6.1 The SA is part of a suite of evidence base documents and other assessments being carried out as the MWLP is prepared. There is an interaction between the requirements for Habitats Regulations Assessment and Strategic Flood Risk Assessments and the SA should take the findings of these into account.
- 1.6.2 Article 6 of Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna – the ‘Habitats Directive’ – introduced the requirement to undertake a ‘Habitats Regulations Assessment’ of the implications of proposed land use plans for the integrity of nature conservation sites of European importance. Such sites are known as Natura 2000 sites, and include Special Areas of Conservation (SACs), candidate Special Areas of Conservation (cSACs), Special Areas of Protection (SPAs), potential Special Areas of Protection (pSPAs), Ramsar sites and Offshore Marine Sites (OMSs).
- 1.6.3 The purpose of a Habitats Regulations Assessment is to determine whether or not significant effects on European sites are likely, and to suggest ways in which they could be avoided. A Habitats Regulations Assessment of the Minerals and Waste Local Plan is being prepared and will be reported separately.
- 1.6.4 An SFRA must be carried out when preparing the Local Plan as it will assess the potential impacts that the proposed minerals and waste site allocations may have on current and future flood risk. A Strategic Flood Risk Assessment of the MWLP is being prepared and will be reported separately.

Table 1.2: SEA Directive Requirements Checklist

Environmental Report requirements as specified in Regulation 12(3) in the SEA Directive	Where information is provided in this report
1. An outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes	Section 1.0 (paragraph 1.2) Section 2.0 and Appendix 1 Section 3.0 (Table 3.3)
2. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	Section 2.0
3. The environmental characteristics of areas likely to be significantly affected	Section 2.0 (baseline) Sections 4.0; 5.0, 6.0 and Appendices 3, 4, and 5 (SA assessments)
4. Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC	Section 2.0 (Table 2.1)
5. The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation	Section 2.0 and Appendix 1 (Review of Plans and Programmes)
6. The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors ²	Section 4.0; 5.0, 6.0 and Appendices 3, 4, and 5 (SA assessments)
7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme	Section 8.0 (Mitigation proposals)
8. An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Strategic policies: Section 4.0 (subsection 4.2) Development Control policies: Section 5.0 (subsection 5.2) Sites (subsection 6.3) Appendix 6
9. A description of the measures envisaged concerning monitoring in accordance with Article 10	Section 9.0
10. A non-technical summary of the information provided under the above headings	Provided as a separate document

² These effects should include those which are likely to be temporary, short, medium and long-term permanent, cumulative, synergistic and secondary. These matters are identified in the detailed assessments of policies and sites contained in Appendices 3 to 5.

2 THE CONTEXT FOR THE PLAN

2.1 Review of relevant plans and programmes

2.1.1 Stage A1 of the SA process, involves establishing the context in which the MWLP is being prepared, namely the other policies, plans, programmes and sustainability objectives, that could influence its content (and vice-versa), and the opportunities and challenges they present. The SEA Directive specifically requires environmental objectives established at international, European Community or national levels to be taken into account in developing a Plan. However, in order to facilitate a comprehensive approach and maximise its sustainability, guidance on SA recommends that this should be widened to consider how the MWLP can support the full range of other plans, policies and programmes that already exist, including at the regional and local levels, taking into account their economic and social as well as environmental objectives.

2.1.2 A review of international, European, national, regional and local policies, plans and programmes has been undertaken. The detailed assessment of these plans is contained in Appendix 1.

2.1.3 The most recent review of plans and programmes has identified that a number of important documents had been published since the Adopted Core Strategy and Generic Development Control Policies DPD's were prepared, and include policy and strategy that has a bearing on the Plan. The following documents are particularly significant.

2.1.4 At the European level:

- The *revised EU Waste Framework Directive* (2008/08/EC), which amended the Waste Hierarchy and set targets for recycling of at least 50% for paper, metal, plastic and glass from households and similar waste streams by 2020, and to reuse, recycle and recover at least 70% of non-hazardous construction and demolition waste by 2020. Therefore, the MWLP needs to reflect these targets and the need to continue to improve landfill diversion performance.
- *The EU Biodiversity Strategy to 2020* sets six targets including: fully implementing the Birds and Habitats Directives; maintaining and restoring ecosystems and their services; and increasing the contribution of agriculture and forestry to biodiversity. These targets are particularly significant for the Plan, because mineral extraction is concentrated in rural areas where it may have possible adverse impacts, but where it presents opportunities for habitat improvement.

2.1.5 At the National level:

- The *National Planning Policy Framework* (the NPPF) was published on 27 March 2012 with the intention of reducing the levels of governmental guidance. The document does not contain specific waste policies; these are published in a revised national Waste Management Plan for England (see below). The NPPF rescinded all Planning Policy Guidance and Statements with the exception of PPS10 (Planning for Sustainable Waste Management), replacing them with broader guidance on issues that a Local Plan should cover, and that Local Authorities should undertake, and which are addressed through the MWLP policies. The principal guidance relating to Flood Risk and Minerals Development was subsequently transposed into the suite of national Planning Practice Guidance, published by the Department for Communities and Local Government, and which remains relevant to the Plan.
- *The National Planning Policy for Waste (NPPW)*, replacing Planning Policy Statement 10 (PPS10), was published in October 2014. NPPW provides a simplified statement, focusing on the responsibilities of planning authorities to prepare evidence-based assessment of the need for waste management facilities and sites. It is supported by Planning Practice Guidance on waste, which defines the scope of the planning authority's obligations with regard to waste. It also includes a detailed list of criteria that should be considered when undertaking SA of a waste plan, and that are addressed by the Sustainability Objectives used in this assessment.
- *The Waste Management Plan for England (2013)* supersedes the Waste Strategy 2007, which was the previous waste management plan for England. It meets the requirements in Article 28 of the revised Waste Framework Directive, which are broader than the requirements of Article 7 in the preceding WFD. This Plan provides an overview of waste management in England and the requirements of waste management going forward to meet the requirements of the WFD.
- *The National Policy Statement on Waste Water (2012)* meets the government's obligation under various EU Directives to protect water quality and reduce waste, while at the same time dealing with the consequences of population growth and ensuring drains and sewers can cope with increasingly peaky flows that are expected to occur as a result of climate change and increasing urbanisation.
- *Planning Practice Guidance (2014) Minerals* supersedes, but largely reproduces, the content of the earlier Minerals Planning Statements and Guidance. It covers minerals safeguarding, steady supply of minerals, site selection, environmental impacts of mineral extraction and restoration of sites.

2.1.6 At the local level:

- *The Local Aggregates Assessments 2013, 2014 and 2015* (prepared jointly with the Lake District National Park), address the requirement for

each mineral planning authority to assess the balance between the demand for and supply of aggregates, and how any shortages are being addressed. The national policy criteria are that a minimum 7-year landbank should be maintained for primary land-won sand and gravel and a 10-year one for crushed rock.

- *The Cumbria Waste Needs Assessments 2014 and 2015*, identify whether there are any gaps in the amount of capacity needed to manage locally-arising controlled wastes, both now and over the Plan period, taking account of how management priorities will evolve over time, also identifying future capacity requirements.
- *The Four-Pronged Attack: Cumbria Strategic Economic Plan 2014-2024*, prepared by the Local Economic Partnership identifies four key priority areas for regenerating the county's economy, with particular emphasis on improved recent GVA growth that has lagged behind the national average.
- *District Local Plans*
 - *Allerdale Local Plan (Part 1) - Strategic and Development Management Policies (2014)*. The adopted Plan (Part 1) forms a key element of the development plan for the area of Allerdale, outside the Lake District National Park. It sets out the strategic and development management policies that will guide development up to 2029.
 - *Allerdale Local Plan (Part 2) – Site Allocations Issues and Options Discussion Paper (July 2014)*. A consultation on the proposals closed in September 2014 and work is continuing on the Preferred Options.
 - *Barrow-in-Furness Local Plan Review 1996-2006*. There is no up to date statutory development plan for the Borough; the Local Plan was adopted in 2001. The Publication version of the new Local Plan, which will be a single document, containing both strategic and detailed policies, as well as borough-wide and site-specific policies, is scheduled for consultation in summer 2016.
 - *Carlisle Local Plan 2015-2030*. Carlisle City Council submitted the Local Plan to the Planning Inspectorate in June 2015. Following Examination, Carlisle is currently consulting on their Main Modifications, and are scheduled to adopt the Plan in autumn 2016.
 - *Copeland Local Plan 2013-2028*. Work has begun on a Site Allocations and Policy Plan. Preferred Options were consulted upon between January and March 2015, but a further consultation on Preferred Options is expected late 2016.
 - *Eden Local Plan (2014-2032)*. The Eden Local Plan was submitted to PINS in 2015. Examination of the Plan is split into two: strategic issues will be considered in May 2016, and site-specific hearings will be held in June/July 2016.

- *South Lakeland Local Plan (2010-2025)*. The Core Strategy was adopted in 2010 and the Land Allocations document was adopted in 2013. Two further DPDs are scheduled for consultation in autumn 2016 – the Development Management DPD and the Arnsdale & Silverdale AONB DPD.
- *Lake District National Park Local Plan (2010-2025)*. The Core Strategy was adopted in 2010 and the Allocations of Land and Minerals Safeguarding Areas document was adopted in 2013. A review of the Core Strategy is currently under way, and it is expected to be adopted in 2018. Work to review the site allocations and MSAs will follow.

2.2 Overview of the sustainability baseline

- 2.2.1 Baseline information provides the basis for predicting and monitoring potential effects. It is a task that has to be approached carefully, to ensure that information is collected at a level of detail appropriate to the scale of the plan, which will allow *potentially significant* effects to be identified. There can sometimes be an over-emphasis on data collation, which is unfortunately exacerbated by the relative ease with which it can now be obtained. The key challenge is to develop an SA baseline that can be clearly linked to the assessment objectives and associated criteria, as opposed to conducting a merely descriptive exercise.
- 2.2.2 The collection of baseline information for the MWLP is an ongoing process. It has been underway since work began to prepare the new minerals and waste planning policy for Cumbria in 2006, and was first documented in the Sustainability Scoping Report (2006) prepared in support of the Minerals and Waste Development Framework, as it was then. This has been subsequently updated in the various Sustainability Appraisal reports that have accompanied the MWDF and MWLP work since.
- 2.2.3 An overview of the environmental, social and economic baseline conditions for Cumbria is set out below, which has been drawn upon for the purposes of assessing the MWLP, with a focus on the relevant characteristics. The sources of the data are listed at Appendix 2.

2.3 Population

- 2.3.1 When compared to England and Wales, Cumbria has an older age profile, with lower proportions of residents in younger age groups and high proportions of residents in the older age groups. The age profile varies considerably by District; Barrow, Carlisle and Copeland have a younger population, whilst Allerdale, Eden and South Lakeland have an older population. The population profile between mid-2013 and mid-2014, increased in numbers of older people and decreased in numbers of younger people.

- 2.3.2 Cumbria has the highest proportion of White British residents of any English County (96.5% compared to 80.5% in England and Wales). However, the County has seen an increase in ethnic diversity, as the proportion of White British residents in 2001 was 98.0%.

2.4 Human Health

- 2.4.1 Life expectancies are highest for the Districts of Eden and South Lakeland, whilst life expectancy is within a similar range for the other Districts in Cumbria. Over the period 2008-2010, average life expectancy in the county was 78.3 years for men and 82.6 for women, compared to 78.6 and 82.6 respectively for England. In 2013, life expectancy was lower than the England and Wales average in Allerdale, Barrow, Carlisle and Copeland Districts. The data shows that this situation prevails for men and women.
- 2.4.2 In the 2015 Indices of Deprivation, Cumbria ranked 86 out of the 152 County Council areas, where 1 represents the most deprived area in relation to a range of social, economic and housing indicators. In 2007, the county was ranked 84 out of 149. However, there are big differences between the levels of deprivation in each District. Barrow is ranked 32 in the most deprived districts in England, in contrast to South Lakeland, which is the least deprived District in Cumbria.
- 2.4.3 The type of deprivation can be identified within Districts. For example, Barrow is the 3rd most deprived district in England in terms of health and 5th most deprived in terms of housing quality. Eden is the most deprived district in England in terms of the geographical barrier sub domain, which measures road distance to a GP, shop, primary school and post office. In contrast, South Lakeland is the 7th least deprived in terms of crime, and Copeland is the 5th least deprived district for the outdoors sub domain.
- 2.4.4 In terms of how people rate their health, 79.5% of people in Cumbria rate their health as very good or good, in comparison to 81.2% in England and Wales. The proportion of people rating their health as bad or very bad in Cumbria is 6%, in comparison to 5.6% in England and Wales.

2.5 Biodiversity

- 2.5.1 Cumbria, including the National Park areas, has many nationally and internationally important wildlife sites, and supports a wide range of protected species. There are nine Local Nature Reserves, 24 National Nature Reserves, eight RSPB Nature Reserves and 288 Sites of Special Scientific Interest. Three areas off the coast have been designated as Marine Conservation Zones - West of Walney (off Barrow), Allonby Bay (Allonby to Maryport) and Cumbria Coast (Whitehaven to Drigg).

- 2.5.2 There are 35 sites, wholly or partially within Cumbria, that have European designations (Natura 2000) recognising their conservation value and the need to afford protection to certain species or habitats. This includes four Special Protection Areas and 31 Special Areas of Conservation. In addition, Duddon Estuary, Esthwaite Water, Irthinghead Mires, Morecambe Bay and the Upper Solway Flats and Marshes are protected under the Ramsar Convention of 1971 on Wetlands of International Importance.
- 2.5.3 The potential impact of the Local Plan upon these European designations has to be addressed separately under the provisions of the Conservation of Habitats and Species Regulations 2010, which enacted European Directives (79/409/EEC) and 92/43/EEC) into UK law. In the first instance, screening needs to be undertaken to ascertain if there are any likely impacts of the Plan upon the European sites. The Habitats Regulation Assessment that is being prepared to accompany the MWLP, will set out in detail the European Sites in Cumbria and adjoining areas, and their qualifying features, and the potential impacts upon them of the policies and sites in the MWLP.
- 2.5.4 There is a Key Species list for Cumbria of around 300 wildlife species. These are species that have the status of being specifically protected or are UK Priority and/or Cumbria Biodiversity Framework (Action Plan) species. Work is continuing to relate these species to appropriate habitat types, functional ecological networks and to geographic areas of the county.

2.6 Built and historic environment

- 2.6.1 In Cumbria, outside the National Parks, the major heritage designation is the World Heritage Site 'Frontiers of the Roman Empire: Hadrian's Wall'. There is also a Registered Historic Battlefield at Solway Moss, nine Registered Historic Gardens, and numerous Conservation Areas and Listed Buildings. The County Council's Historic Environment Record (HER) currently lists 16,845 historic and archaeological sites, of which 799 are Scheduled Monuments.
- 2.6.2 Local building stone is used, where appropriate, for any repairs or improvements needed to historic buildings and structures in the county, in order that the local vernacular is preserved. Furthermore, new developments are often constructed with locally sourced materials, to be in character with the existing features.
- 2.6.3 There have been a number of projects in Cumbria, which seek to assess, conserve or enhance particular elements of the historic environment in the county. In partnership with Oxford Archaeology North and English Heritage (now Historic England), the County Council sought an assessment of the impact of aggregate extraction upon the heritage resource of Cumbria. The project was designed to inform and facilitate the improved curation of the archaeological resource in relation to mineral extraction for Cumbria, outside of the designated landscapes of the National Parks, the Areas of Outstanding

Natural Beauty (AONBs) and the Heritage Coast. The study that was produced identifies areas of potential future aggregate extraction from the Local Plan, providing a more detailed information base for the heritage resource within these areas, to enable the county's rich heritage assets to be better understood and to be prioritised.

2.7 Landscape character and designations

- 2.7.1 Cumbria's natural environment is diverse and its unique topography has been shaped by the passage of time and climatic conditions acting on the underlying rock structures. These processes, including melting glaciers, have influenced soil, vegetation and wildlife distribution.
- 2.7.2 The Plan area is made up of distinct character areas. The Solway Basin has stretches of sandy and pebble beaches backed by dunes and raised beaches along the Irish Sea. These give way to the inter-tidal mud-flats of the Solway Firth. Other features include Victorian seaside resorts, raised peat bogs and narrow country lanes winding through gently, undulating pastureland with little tree cover.
- 2.7.3 The West Cumbria Coastal Plain stretches south from Maryport to Barrow-in-Furness. The main towns abut areas of industrial activity or redundant industrial land. The coastline contains a mixture of mudflats, shingle and pebble beaches, interspersed with smaller areas of dunes, sandy beaches and sandstone cliffs. Inland, undulating or flat pasture, with hedgerows and some tree cover, is the dominant feature. Wetlands and herb-rich meadows exist along with river valleys, with some semi-natural ancient woodland. Elsewhere, there are extensive areas of estuary, with a range of inter-tidal habitats.
- 2.7.4 The River Eden and its tributaries dissect the Eden Valley. These river valley landscapes sit amidst open, rolling mixed farmland, neatly delineated by hedgerows and drystone walls. Broadleaved woodland is common, and settlements are generally constructed from red sandstone, although around the fringes, limestone construction is the norm. On either side of the Eden Valley foothills, unimproved grassland and moorland merge into the wilder Cumbrian High fells and the North Pennines.
- 2.7.5 The Orton Fells lie within a line drawn south east from Penrith to Kirkby Stephen, then west to Tebay, north to Shap and north west to Askham; the bulk of the Fells lie within the Plan area. They are distinguished by moorland, with extensive areas of limestone pavements, rocky outcrops, scree and calcareous grassland. There are few trees and few deep flowing rivers or streams. Sheep are reared on the higher, rough pastures while lower down, grass is grown for hay, silage and winter grazing. Dwellings and field boundaries are traditionally built with limestone.

- 2.7.6 The Howgill Fells form a heart shaped range of rounded hills bounded by Tebay, Sedbergh and Ravenstonedale. Only the northern half of the Howgills falls in the Plan area. The landscape comprises ridges and valleys, with steep scree slopes, occasional waterfalls and crags, open moorland with rough grass and bracken, few trees and few settlements, all of which combines to give a sense of wilderness. Farming is dominated by sheep, with cattle rearing confined to the lower slopes.
- 2.7.7 Finally, the Plan area stretches from Grayrigg, across Burnside down through Kendal to Arnside and eastwards to Kirkby Lonsdale. This area is part of the South Cumbria Low Fells, noted for undulating pastureland, areas of woodland and managed estates, which give a parkland appearance. Settlements are built of local limestone.
- 2.7.8 The Plan area excludes both National Parks and, therefore, more or less excludes the Cumbria High Fells and the South Cumbria Low Fells; the overlap is approximate and not exact. Of the other landscape designations, there is only one stretch of Heritage Coast, which is located at St Bees Head.
- 2.7.9 With regard to the designations of Areas of Outstanding Natural Beauty (AONBs), there are three: the North Pennines, the Solway Coast and Arnside and Silverdale. The North Pennines AONB is also designated as a European and Global Geopark. Much of the Solway Coast AONB is designated as a Site of Special Scientific Interest (SSSI); there is also a Special Area of Conservation, a Special Protection Area and a Ramsar site associated with the Solway Firth and its environs. Part of the Arnside and Silverdale AONB lies within the Morecambe Bay Special Area of Conservation, Special Protection Area and Ramsar.
- 2.7.10 In recognition of the rarity of limestone pavements, 41 areas in the Plan area have been covered by Limestone Pavement Orders to protect this unique habitat and landscape feature.

2.8 Water quality and resources

- 2.8.1 Cumbria has some of the largest water resources in England. The River Eden travels over 90 miles from the North Yorkshire border to the Solway Firth. The River Ehen, River Calder, River Petteril, River Caldew, River Kent and the River Irthing are other significant rivers in the Plan area.
- 2.8.2 For the region as a whole, the River Basin Management Plan³ for the North West (2015) found that 22% of water bodies are at good or better overall status now, and 26% of water bodies are predicted to be at good or better overall status by 2021. The report rates the quantitative quality of groundwater in Cumbria as good (16/18 water bodies).

³ DEFRA & EA, Water for life and livelihoods: Part 1 North West river basin district (updated 2015)

- 2.8.3 Cumbria has generally very high water quality. The North West General Water Quality Assessment (GQA) 2003, found that 98.59% of rivers in Cumbria have good to fair biological quality compared to only 87.69% for England as a whole. For chemical quality, 98.19% of Cumbria's rivers are good to fair quality, compared to 93.43% for England.
- 2.8.4 For bathing water quality, all of the 13 bathing waters in Cumbria meet the minimum standard, including six that meet a higher standard. The principal aquifers within Cumbria are Triassic sandstone, Permian sandstone, Carboniferous Limestone and the Fell Sandstone and Border Group.
- 2.8.5 There are groundwater source protection zones at Barrow-in-Furness, north west of Aspatria, Aughtree, Iron Crag, King's Forest of Geltsdale, north of Staveley and several at Penrith and in the surrounding area. There are principal aquifers within the bedrock on long stretches of the coast of Cumbria, between Aspatria and Carlisle and between Carlisle and Kirkby Stephen.

2.9 Climate change and energy

- 2.9.1 As an indicator for climate change, carbon dioxide emissions per capita in 2012 for the county were above the national figure. Data for 2012 (edition released in 2014) shows that there has been a reduction in per capita emissions since 2005, going down from 10.9 tonnes in 2005 to 9.7 tonnes in 2012. Per capita emissions from road transport were 2.9 tonnes in 2012, which is higher than the national figure of 1.9 tonnes, illustrating the importance of actions to remove the number and/or distance of road movements of both minerals and waste.
- 2.9.2 High precipitation levels and rapid runoff rates of many rivers, mean that many areas of the county are at risk of flooding. Climate change will put Cumbria at increased risk from flooding, as a result of higher precipitation and rising sea levels. The County and District Councils are working with the Environment Agency in the Cumbria Flood Partnership, which will publish a 25 year Flood Action Plan in July 2016.

2.10 Transport

- 2.10.1 Key services in Cumbria are generally less accessible than in other areas of England, but there is much variation between Districts, with Eden being amongst the least accessible in England. At national and county level, employment centres were accessible to the greatest proportion of residents within a 'reasonable' time, while hospitals were accessible to the smallest proportion of residents within a 'reasonable' time.
- 2.10.2 Transport links to the north and south are good, along the M6 motorway and the west coast main railway line, but east-west communications are more difficult, with limited rail infrastructure and narrow, often single carriageway

roads. Car ownership (79% of households) is noticeably higher than the national figure of 74%, probably due to the rural nature of the county.

2.10.3 The West Coast Main Line stops at Oxenholme, Penrith and Carlisle, and serves major cities such as London, Birmingham, Manchester, Glasgow and Edinburgh. Smaller rail services include the Lakes Line from Oxenholme to Windermere, the Furness Line from Barrow-in-Furness to Lancaster, the Cumbrian Coast Line from Carlisle to Barrow-in-Furness, the Tyne Valley Line from Carlisle to Newcastle and the Settle-Carlisle Line.

2.10.4 The main ports in Cumbria are at Barrow-in-Furness, Workington and Silloth, whilst smaller ports and marinas are at Whitehaven, Harrington, Maryport and Millom.

2.10.5 The Port of Barrow has a wide experience in handling specialist vessels such as nuclear fuel carriers for Sellafield Ltd., and condensate vessels for Centrica. It is used to support oil and gas offshore pipeline and development projects. Barrow is also experienced in handling vessels for BAE Systems Marine Ltd., at the UK's largest shipyard. The Port of Workington, which is owned by the County Council, is the largest port in Cumbria and serves the region's industry and agriculture. Cargo that passes through Workington includes desulphurised gypsum for use in the plaster and plasterboard works at Kirkby Thore. The most regular imports at Silloth are grain, fertiliser and cement.

2.10.6 Airports in the county include Carlisle Airport and Walney Island Airport, but they do not cater for passengers. The county contains an operational air force base at RAF Spadeadam, which is the largest (by area) in the United Kingdom. Landfills in the vicinity of these airports and airfield have the potential to increase the risk of bird strikes.

2.10.7 The nature of both minerals and waste means that the most common method of transportation is by Heavy Goods Vehicle (HGV), which has implications for quality of life issues, such as air pollution, noise and road congestion. There is no data that enables the effect of the industry to be isolated from other traffic-generating activities.

2.11 Air quality

2.11.1 Poor air quality affects wildlife, soil and vegetation, and is a problem for both urban and rural areas in Cumbria, due to the prevailing wind. Cumbria has major areas of industry that cause air pollution, which in turn contributes to acidification in the uplands of the Pennines and Lake District National Park.

2.11.2 Within Cumbria, there are currently Air Quality Management Areas (AQMAs) set up in South Lakeland and Carlisle. AQMAs help Local Authorities in

carrying out their statutory duty to work towards meeting national air quality objectives.

2.11.3 There are currently 21 companies in Cumbria monitored by the Environment Agency for pollutant emissions. Eleven of these companies are currently releasing nitrogen oxides, three are releasing sulphur dioxide and two are releasing particulate matter (PM₁₀'s). All are operating within the limits set. All four Cumbrian monitoring sites for sulphur dioxide (SO₂) show a steady decline in SO₂ levels around the county. Emissions of nitrogen oxide (NO_x) have increased by 20% over the last 20 years, largely due to increases in traffic. All air quality samples taken in recent years have been well within EU and UK limits.

2.12 Economy and employment

2.12.1 The biggest employment sector in 2014 was manufacturing at 16%, followed by health at 14%, accommodation and food at 12% and retail at 11%. Cumbria has lower proportions of employment in information and communication, finance and property sectors than the national average.

2.12.2 Average earnings are relatively low in comparison with the rest of the region and the UK. Cumbria's Gross Value Added (GVA) per head remains consistently below that of the UK. In 2013, Cumbria's GVA per head of population was £19,423 compared to a national figure of £23,755. This made Cumbria's GVA per head 83 when indexed against the UK, placing it 21 out of 37 NUTS⁴ areas (where 1 is the highest). This index has improved in recent years despite relatively weak GVA growth, but this is as a result of demographic changes, reducing the population denominator, rather than stronger economic performance. The Job Seekers Allowance (JSA) claimant rate in Cumbria in January in 2015 was 1.6%, which compares to 2.1% nationally.

2.12.3 Economic performance and employment differentials within Cumbria can be discerned from more disaggregated data. West Cumbria's (Allerdale, Barrow and Copeland) GVA per head of population was £19,032; East Cumbria's (Carlisle, Eden, South Lakeland) was £19,770 (68 and 57 respectively, out of 139 NUTS2 geographical areas). As of January 2015, the JSA claimant rates in West Cumbria were higher than those in East Cumbria. In West Cumbria, the JSA claimant rates were: Allerdale 2.0%; Barrow 2.8% and Copeland 2.1%. In East Cumbria they were: Carlisle 1.3%; Eden 0.6% and South Lakeland 0.7%.

2.12.4 Cumbria's Local Economic Partnership (LEP) has agreed a strategy for the period to 2024, seeking to build on well-performing sectors of the established industrial base focusing growth on the energy sector, advanced manufacturing, the rural and visitor economy, and enterprise growth along the

⁴ Nomenclature of Terrestrial Units for Statistics (NUTS2)

M6 corridor. The strategy seeks to stimulate GVA by 2.2% over the period, generate 15,000 new full-time equivalent jobs and deliver 30,000 new homes, with the latter having specific implications for the sustainable supply of aggregates from sources within the county.

2.12.5 The strategy identifies four key business drivers, including environmental sustainability and the need to maintain and improve performance and quality in key areas (visitor economy, agri-food production, carbon storage and renewable energy), and in not exceeding environmental capacity or harming protected natural assets.

2.12.6 Mineral and waste activities might offer employment for local people with a range of skilled and unskilled jobs; however, it should be recognised that mineral workings provide a steady supply of materials over a sustained period, so there may be limited opportunity to create new jobs. Prospects for job creation are marginally better in the waste sector, as the need for new types of facility may result in new business growth; however, most waste management facilities are not labour intensive and unlikely to make more than a marginal increase in local employment.

2.13 Strategic Infrastructure

2.13.1 At present, a substantial number of new developments and regeneration projects are in progress or being planned, and their impacts may have implications for the MWLP.

2.13.2 National Grid (NG) is undertaking a major reinforcement of the electricity distribution network in the North West. This programme is necessitated by growth in generating capacity within the county, as a result of the construction of three new offshore wind farms at locations distributed along the coast. There is also the possibility of a new nuclear power generation facility at Sellafield. NG has consulted on a number of options for connecting Sellafield to the existing grid network, and this may result in underground cable emplacement that will generate additional construction and demolition wastes. NG is also considering drilling a cable tunnel beneath Morecambe Bay, to connect new or upgraded transmission infrastructure to the grid network near Lancaster.

2.13.3 In addition to the possible construction of a new power station at Sellafield, the Nuclear Decommissioning Authority (NDA) is continuing programmes for decommissioning of several storage facilities on the complex. Throughout the life of the MWLP, the NDAs work will continue to generate radioactive wastes, requiring treatment, management, storage or disposal, on-site, at the Low Level Waste Repository or at facilities outside the county.

2.13.4 The Cumbria LEP Economic Strategy for 2014-2024, identifies 20 programmes for infrastructure investment, addressing the four priority areas

identified in section 2.12. Most address local issues, but a number may have indirect implications for minerals and waste activity, in terms of demand for materials (primary and secondary) and the quantity of wastes generated during the Plan period. Some may also address current limitations of certain site allocations in the Plan.

- advanced manufacturing growth: four programmes, including access improvements to Barrow waterfront;
- energy excellence: access improvements to the Port of Workington and water-side infrastructure, as well as other improvements at various points on the A595 road, linking Carlisle to the main West Cumbria settlements;
- rural/visitor economy: nothing specific, as all projects are very localised;
- enhancing the M6 corridor: various improvements to access for industrial and business parks, and delivery of 30,000 new homes in the county by 2024. The principal growth points are in Carlisle, Kendal and Penrith.

2.14 Waste management

2.14.1 Local Authority Collected Waste (LACW), previously referred to as municipal waste, has three components:

- household waste – all waste generated on residential properties, which may be collected from the kerbside (residual and recyclables) or taken to Household Waste Recycling Centres (HWRCs) or ‘bring sites’ (e.g. bottle banks);
- trade waste – waste generated on (usually) very small business premises, which is collected by the County Council or its appointed contractors. A small amount of trade waste is also taken to HWRCs by traders, under County Council permitting schemes;
- other, non-household waste – these are diverse wastes, including street and gutter sweepings, wastes from street letter bins, sweepings from parks, gardens and beach cleansing.

2.14.2 Local Authorities are responsible for managing LACW in their area. The County Council is responsible for the disposal of waste collected by the Lake District National Park Authority and the District Councils. The Cumbrian authorities formed the Cumbria Strategic Waste Partnership (Resource Cumbria) to deliver a Joint Municipal Waste Management Strategy (JMWMS)⁵ for the period 2008-2020, which updated waste collection and recycling services, and enabled the construction of the necessary infrastructure to treat the county’s LACW. In calendar year 2013, 49% of all LACW and 47% of household wastes were recycled or composted.

2.14.3 The Cumbria District Councils (including from the Lake District National Park Authority area and that part of the Yorkshire Dales National Park that lies in

⁵ Evidence Base document reference LD38: Cumbria Strategic Waste Partnership

Cumbria) collect two types of waste at the kerbside: firstly, the mixed household waste, in grey bins or black sacks; and secondly, the source separated wastes, that are placed in separate boxes or bags by the householder, for onward recycling. These wastes are managed under a Joint Municipal Waste Management Scheme, and a long term municipal waste management contract, between the County Council and Shanks Group PLC.

2.14.4 Shanks operate two mechanical and biological treatment (MBT) plants, each with a capacity of 75,000 tonnes per annum (tpa), at Hespian Wood near Carlisle and at Barrow-in-Furness; they commenced operation in 2012 and 2013 respectively. Household Waste Recycling Centres (HWRCs) are also managed within that contract.

2.14.5 Two Waste Needs Assessments (WNA) have been prepared in support of the MWLP – one in 2014 (based on data for calendar year 2013) and a review in 2015 (based on data for calendar year 2014). They set out current arisings and have been used to develop predictions of further capacity required in Cumbria immediately, by 2030, and at relevant interim dates. The WNA reports provide a summary of total capacity required for the principal types of waste management functions, a summary of additional built waste facilities that may be required, and estimates of landfill void capacity throughout the Plan period. The key conclusions of the 2014 WNA are:

- there is sufficient non-inert landfill void capacity for the Plan period, if all current consents were granted time extensions at the end of their current expiry dates;
- there is likely to be low inert landfill capacity remaining by 2030, particularly if no time extensions were to be granted to existing sites;
- a need for a single additional mixed recycling facility for C&I waste is identified, but the model shows this as an existing need required immediately. The capacity gap, however, disappears when C&I waste and LACW are considered together, so no need would arise during the Plan period if the existing facilities are utilised flexibly for both waste streams;
- a need for additional composting facilities for C&I waste and LACW would arise in 2020 if a time extension were not to be granted for an existing facility. The existing consent would, however, automatically be extended if the adjacent landfill were to be granted a time extension;
- there is a current requirement for thermal waste treatment capacity in the county, which is likely to reach a maximum of almost 120,000tpa in 2020 and diminish thereafter;
- a need exists for additional Household Waste Recycling Centre capacity due to the planned closure of sites at Kendal, Workington and Frizington.

2.14.6 The County Council have analysed the cross border movements of waste and this indicated four trends:

- the volumes of waste imported to Cumbria and exported from Cumbria are not disproportionate, even when radioactive waste is excluded from the data assessment;
- the majority of exported material is Household and Commercial and Industrial (HIC) waste;
- the county is virtually self-sufficient in management facilities for CD&E waste and the county receives and treats a significant amount of CD&E waste from other areas;
- the treatment of hazardous waste, by contrast, can be complex and the tonnages to be treated are small and require specialised treatment and disposal facilities that are provided on a strategic basis. Current exports and imports of hazardous wastes are likely to continue.

2.14.7 Cumbria hosts a significant number of nuclear industry and non-nuclear industry sites; they variously produce, treat, manage, store and/or dispose of radioactive wastes. This includes Sellafield, the Low Level Waste Repository and Lillyhall Landfill. They are almost all located in West Cumbria, which has by far the largest concentration of nuclear waste management facilities in the UK. The issue for Cumbria is the safe and efficient decommissioning and demolition of nuclear licensed facilities, as well as ensuring the safe storage and management of radioactive wastes from all sources.

2.14.8 At present, the full range of radioactive wastes (High, Intermediate, Low and Very Low Level), arising from both within and outwith the county, are treated, stored or disposed of in West Cumbria. The majority of LLW and VLLW arising within Cumbria that is not disposed to the onsite facility at Sellafield, is managed through Low Level Waste Repository Ltd's commercial frameworks, by exporting it outside the county to suitable treatment facilities, such as incineration. In the 2014/15 financial year, over 1,000m³ of LLW and VLLW arising within Cumbria was managed in this way. For the same year, approximately 600m³ of LLW was imported from outside Cumbria to the Repository for storage, pending final disposal. In addition, around 11,000 m³ of LLW arising outside Cumbria, was diverted from the LLWR to suitable treatment and alternate disposal facilities.

2.15 Aggregate minerals

2.15.1 Cumbria is an important source for a range of minerals and is self-sufficient in aggregates. Some operational quarries in Cumbria also supply other markets, especially in the North West and the North East regions. Just under a third of Cumbrian quarries supply national markets, including Wales and Scotland, and three of Cumbria's crushed rock quarries are able to supply high specification aggregates (HSA) that are essential for high skid resistance

roadstone used for highway surfacing. These are a nationally significant resource.

2.15.2 There are 10 operating sand and gravel quarries within Cumbria, outside of the Lake District National Park (LDNP), 17 operating building stone quarries, of which eight produce aggregates from slate, sandstone and limestone, and 17 operating hard rock quarries, providing limestone, igneous and sandstone rock. Two of the hard rock quarries, Shap Beck and Shap Blue, are partly within the LDNP. In addition to producing aggregates, four of the limestone quarries supply industrial markets, mostly for burnt lime.

2.15.3 Cumbria County Council prepared its third Local Aggregates Assessment (LAA) in 2015, jointly with the Lake District National Park Authority. The LAA was based on data for the calendar year 2014 collected from mineral operators in Cumbria, and sets in detail the county's position in relation to aggregate supply and demand.

2.15.4 Permitted reserves of crushed rock in Cumbria, including the Lake District National Park, at the end of 2014 were 137.06 million tonnes (Mt), 10-year average annual sales had been 3.26 Mt, representing a landbank of 42.04 years. For land-won sand and gravel, permitted reserves were 9.2 Mt, 10-year annual average sales had been 0.63 Mt, representing a landbank of 14.6 years.

2.15.5 Production of secondary and recycled aggregates in the county makes a valuable contribution to resource efficiency and the protection of the environment from unnecessary primary extraction. There are almost 20 main processing plants in Cumbria, producing alternative aggregates from quarry waste, recycled or reused materials. Marine dredged aggregates are landed at Barrow, with small amounts provided by channel maintenance activities at some Cumbrian harbours.

2.16 Other minerals

2.16.1 The only gypsum deposits being worked in Cumbria are by underground mining in the Long Marton/Kirkby Thore area. In recent years, demand for gypsum for plaster and plasterboard has reduced substantially due to the recession. Reserves of gypsum at Birkshead mine are consequently still likely to be sufficient for around 15 years, depending on how soon major construction activity recovers. Once that mine is exhausted, the remaining resources in that area would have to be worked by surface mining.

2.16.2 Mudstones are needed to supply Askam-in-Furness brickworks and deposits are only found near the brickworks. Output from the brick-making mudstones quarry has significantly reduced due to the recession. A planning application to extend the life of its planning permission to 2028, was approved in 2013.

- 2.16.3 Some quarries also market industrial grade high purity industrial limestone; these are not included in the sales figures for aggregates. The most notable of these quarries is Shap Fell, which usually supplies the steel industry's lime kilns at the nearby Hardendale Works, but is currently not operating pending resolution of a Review of Minerals Permission application.
- 2.16.4 There has been interest in the potential for resurrecting zinc mining near Nenthead and in adjoining areas of Northumberland, or possibly Durham. Geological investigations by boreholes have been carried out under permitted development rights, but no development proposals have been discussed. It is not clear whether any development would be within the boundaries of any of the dormant permissions for underground mining that exist in the area. There are, however, no planning permissions for surface developments at this time.
- 2.16.5 Peat is currently worked at one commercial peat site at Solway Moss. A second site at Bolton Fell has been bought by Natural England and an appropriate scheme to restore the site to natural peat was approved in 2014. The peat extraction site at Solway Moss has reserves that will last until the expiry of the planning permission in 2042. Continued extraction is, therefore, permitted until that time, and no time extensions or further areas for peat extraction would be required during the Plan period.
- 2.16.6 There are 26 operating building stone quarries across the county. Nine of these quarries are located in the Lake District National Park, of which only two produce aggregate, as a by-product of slate working. The remaining 17 building stone quarries are located outside the Park and, of these, eight produce aggregates from slate, sandstone and limestone.

2.17 Key sustainability issues

- 2.17.1 Table 2.1 summarises the key sustainability issues and pressures that were identified in Cumbria in the original Scoping Report in July 2006. Those recognised as most relevant to the MWLP are highlighted in bold.
- 2.17.2 The table then summarises the changes identified in the review of Policies, Plans and Programmes, and the local social, environmental and economic conditions identified in preparing the SA baseline. These issues and pressures facing Cumbria need to be reflected in the Strategic Objectives of the Local Plan.

Table 2.1 Summary of key sustainability issues/pressures

Social	Update and Implications for the MWLP
<ul style="list-style-type: none"> • Pressure for housing pushing prices up – implications for housing to meet local needs and affordability of housing (South Lakeland, Eden & Lake District National Park); • Second homes/holiday lets and inward migration by retired people adds to this pressure (South Lakeland, Eden & LDNP); • Run-down and vacant properties not utilised fully (Barrow & West Coast); • Access to services and facilities problematic in rural communities; • Public transport network inadequate in rural areas; • Comparatively safe communities overall, but fear of crime disproportionately high in isolated rural areas; • Some alcohol-fuelled anti-social behaviour linked to the night-time economy (Carlisle and Barrow) and a comparatively high number of race related incidents; • ‘Tourist’ shops, for example in LDNP, may reduce the number of shops and services providing for local needs; • Established out of town shopping affecting the viability of smaller town centres; • Traffic congestion at peak times (Carlisle, Kendal) and also seasonal congestion (LDNP); • Lack of cycle networks within towns and cities; • Loss of young people, particularly graduates, and a reluctance of young people to continue family farming traditions. 	<p>The dispersed nature of the population and settlements within Cumbria, and the topography of the county, provides a continuing challenge in delivering services to rural communities.</p> <p>The Plan must ensure that waste management sites are appropriately located to facilitate community access where appropriate. This is most relevant to provision of Household Waste Recycling Centres. A network of appropriate waste management facilities, with the potential for ‘innovative solutions or alternative sites’ for small communities, is necessary.</p> <p>This issue cross references to economic, environmental and resource issues. Provision of convenient waste recycling services to households can minimise per capita carbon emissions by increasing recycling and minimising disposal of biodegradable waste to landfill.</p>
Economic	
<ul style="list-style-type: none"> • Unemployment, with higher levels of economic inactivity in West Cumbria and Furness, partly linked to large number of incapacity benefit claimants; • Low unemployment and skills shortage in Eden and South Lakes; • Economic vulnerability due to decline of manufacturing & uncertain future of nuclear industry (West Coast & Barrow); • Increasingly frequent relocation of jobs outside the county (and the country); • Low wage economy, particularly tourism related jobs; 	<p>Unemployment in Cumbria as a whole is less than the national rate, but Gross Value Added per head of population remains low.</p> <p>Some areas within Cumbria continue to experience economic and social problems, and the Local Plan needs to ensure that minerals and waste sectors make a contribution to the local economy of Cumbria and provide direct and indirect employment to local people.</p>

<ul style="list-style-type: none"> • Below average share of growth sectors in local economy; • Limited research and development facilities; • Gross Value Added (GVA) growing more slowly than the rest of the UK, causing the economy to underperform, and a widening of regional disparities of wealth; • Farming crises causing problems for agriculture, coupled with unique problems of farming in upland areas (falling incomes and the labour intensive nature of the work); • Poor access to West Cumbria and Barrow; • Redundant port and harbour areas in need of rejuvenation; • Pressure from mobile phone and internet companies/users to improve telecommunications in Cumbria; • Lots of derelict/contaminated (brownfield) land in some areas due to decline in industry economy and secure jobs. 	<p>Economic growth and infrastructure proposals in West Cumbria will need to be supported by addressing resource issues (identified in Resources below).</p> <p>Ongoing use of ports and harbours for minerals and waste transport should be encouraged.</p> <p>The use of brownfield land should be encouraged.</p>
Environmental	
<ul style="list-style-type: none"> • Loss of tranquillity and impact of lights on dark skies; • Vulnerability of the landscape to recreational leisure and sporting activities; • High proportion of species identified for national conservation priority; • Large tracts of upland and coastal habitat remain, but elsewhere there are declines in extent (fragmentation) and quality of wildlife habitats and populations for some species; • High proportion of nutrient rich lakes supporting a wide range of aquatic plants, invertebrates and breeding and wintering wildfowl; • Vulnerability of nutrient rich lakes and nutrient poor lakes (and their resident species) to additional enrichment from farming fertiliser run off and sewage; • Significant pressure on rivers, lakes and tarns from diffuse sources of pollution (agricultural wastes, fertilisers and run off from drains and road surfaces, coupled with some air pollution); • Unknown impact of climate change, possibly leading to outward migration of some species and inward migration of others, as average temperatures rise; • Unsympathetic alterations to old buildings 	<p>The Local Plan must ensure that adequate protection is afforded to the high quality natural and historic environment present within Cumbria.</p> <p>New waste management facilities must be carefully located and both waste management and mineral extraction facilities must be managed to both protect and enhance the County's environmental assets.</p> <p>The impacts of climate change for Cumbria include increased precipitation rates and risk of flooding. Minerals and waste developments can offer opportunities for improved flood storage, as well as ameliorating increased risk of flooding elsewhere.</p> <p>There are opportunities to minimise or reduce greenhouse gas emissions through minerals and waste developments. This includes energy generation and</p>

<p>and bland new developments altering historic character and damaging archaeology in some areas;</p> <ul style="list-style-type: none"> • National renewable energy targets likely to lead to pressures for more development of wind farms, which could affect landscape character and quality; • Air quality problems in urban areas; • Need to reduce the risk to people and property from flooding (Carlisle, Kendal, Ulverston, Cockermouth and Keswick). 	<p>protection of sequestered carbon in peat.</p>
<p>Resources</p> <ul style="list-style-type: none"> • Pressure responding to regulations preventing biodegradable waste going to landfill; • The need to develop alternative waste management methods and secure the necessary level of investment in additional facilities; • Problems of disposal and storage of radioactive wastes; • Pressure to continue to supply scarce mineral resources to meet national demand (gypsum and skid resistant roadstone); • The need to meet mineral demand by substituting secondary and recycled material for primary aggregates. 	<p>The reduction in disposal of municipal waste to landfill has shifted emphasis to enabling provision of treatment capacity for moving commercial and industrial waste up the waste hierarchy.</p> <p>There will always be a need for the disposal of radioactive waste, but techniques are constantly developing to divert waste into treatments that will decrease their volume or reduce their hazard. Environmentally sustainable options will be supported.</p> <p>Continuing adequate supplies of construction minerals will be required if constraints on growth, regeneration and development are to be avoided.</p>

3 THE SA FRAMEWORK AND METHODOLOGY

3.1 Sustainability Appraisal Framework

- 3.1.1 The sustainability framework used to assess the MWLP, consists of a series of Sustainability Objectives against which sustainability effects can be described, analysed and compared.
- 3.1.2 The sustainability framework was developed as part of the work on the Minerals and Waste Development Framework and was documented in the Sustainability Appraisal Scoping Report (2006). The County Council's Sustainability Team and the Cumbria Sustainability Group, comprising representatives of the four statutory consultees, the six District Councils, the Lake District National Park Authority, and the County Council, worked together to identify key issues and pressures for Cumbria and to develop an appraisal framework to be used as the basis for all Sustainability Appraisals across Cumbria including planning documents. The issues most relevant to minerals and waste development were incorporated into the sustainability framework, and appraisal criteria developed for the Stage 1 SA report on Issues and Options in 2006. The same framework was used as the basis for the SA of the two Preferred Option stages, the adopted Core Strategy and Generic Development Control Policies DPDs and the draft Sites Allocations DPD, and is being carried forward to be used as the basis of the SA of the MWLP. The County Council are satisfied that the sustainability framework remains relevant and robust for ongoing use.
- 3.1.3 The Sustainability Objectives in the framework were agreed through a robust and systematic process following extensive consultation when the Scoping Report was produced. The full list of sustainability objectives is set out in Table 3.1. Criteria for measuring progress against each Sustainability Objective were also developed to assist with the appraisal of the MWLP; these are set out in Table 3.2. Those highlighted in grey are those considered most relevant to the assessment of the MWLP. In earlier SA reports, policies and sites have been assessed against these objectives only. However, for the purpose of this SA the policies in the MWLP 2016 have been assessed against all objectives, and overall scores provided for each evaluation criteria rather than for each sub-criteria.

Table 3.1: Cumbria County Council Sustainability Objectives

Sustainability Objectives	
Social Progress which recognises the needs of everyone	
SP1	To increase the level of participation in democratic processes
SP2	To improve access to services, facilities, the countryside and open spaces
SP3	To provide everyone with a decent home
SP4	To improve the level of skills, education and training
SP5	To improve the health and sense of well-being of people
SP6	To create vibrant, active, inclusive and open-minded communities, with a strong sense of local history
Effective protection of the environment	
EN1	To protect and enhance biodiversity
EN2	To preserve, enhance and manage landscape quality and character for future generations
EN3	To improve the quality of the built environment
Sustainable use and management of natural resources	
NR1	To improve local air quality and reduce greenhouse gas emissions
NR2	To improve water quality and water resources
NR3	To restore and protect land, soil and geodiversity
NR4	To manage mineral resources sustainably and minimise waste
Building a sustainable economy in which all can prosper	
EC1	To retain existing jobs and create new employment opportunities
EC2	To improve access to jobs
EC3	To diversify and strengthen the local economy

Table 3.2: Sustainability Objectives and Appraisal Criteria

Objective		Criteria
SP1	To increase the level of participation in democratic processes	<ul style="list-style-type: none"> To encourage and empower local people to become involved.
SP2	To improve access to services, facilities, the countryside and open spaces	<ul style="list-style-type: none"> To improve access to recycling and composting services, using sustainable transport choices.
SP3	To provide everyone with a decent home	<ul style="list-style-type: none"> To help meet local housing need.
SP4	To improve the level of skills, education and training	<ul style="list-style-type: none"> To provide education and training.
SP5	To improve the health and sense of well-being of people	<ul style="list-style-type: none"> To reflect fully the role of the planning system in minimising potential health impacts associated with waste management and mineral extraction activities, e.g. noise and dust emissions. To reflect fully the role of the planning system in ensuring a healthy and safe working and living environment both on and off site (e.g. including transportation and other issues). Impact on the sense of well-being of people Seek to mitigate impacts on quality of life, from

Objective		Criteria
		the waste management or minerals sector.
SP6	To create vibrant, active, inclusive and open-minded communities with a strong sense of local history	<ul style="list-style-type: none"> • Seek to encourage community identity. • Engender social cohesion and help continue valued local traditions. • To promote recreational and cultural activity the arts, heritage, dialect and sport.
EN1	To protect and enhance biodiversity	<ul style="list-style-type: none"> • Seek to minimise the impact of waste management and mineral extraction activities on designated and priority habitats. • Seek to minimise the impact of waste management facilities on protected and key species. • Seek enhancement of natural/ecological resources • Promote restoration of current and past mineral working sites for biodiversity benefits.
EN2	To preserve, enhance and manage landscape quality and character for future generations	<ul style="list-style-type: none"> • Protect areas of designated landscape and cultural heritage value and acknowledge wider landscape sensitivity to development. • Recognise the importance of countryside remoteness and tranquillity and seek to protect them.
EN3	To improve the quality of the built environment	<ul style="list-style-type: none"> • Seek to support conservation of the built environment (e.g. locally sourced stone for construction), and to avoid adverse impacts on the built heritage from mineral working. • Seek to avoid inappropriate development in flood risk areas. • Seek to reduce noise, light pollution, dust emissions, etc., arising from minerals developments and associated land use. • Aim to enhance the degraded urban and rural environment within the area.
NR1	To improve local air quality and reduce greenhouse gas emissions	<ul style="list-style-type: none"> • Seek to adequately control dust emissions associated with waste management and minerals working. • Promote the sustainable transport of waste and minerals, where feasible, as a means of helping to reduce emissions. • Stimulate the development and application of clean/carbon efficient technologies. • Support energy from waste facilities and contribute to the use of renewable energy sources. • Take into account predicted climate change, and proactively promote adaptation within the minerals and waste sectors.
NR2	To improve water quality and water	<ul style="list-style-type: none"> • Provide adequate protection for waterbodies and the marine environment, and promote the

Objective		Criteria
	resources	efficient use of water.
NR3	To restore and protect land, soil and geodiversity	<ul style="list-style-type: none"> • Encourage the siting of waste management facilities on brownfield land, and aim to reduce the amount of contaminated land. • Seek to protect good quality agricultural land and greenfield sites, as far as possible. • Include measures to avoid soil degradation, pollution and the use of peat.
NR4	To manage mineral resources sustainably and minimise waste	<ul style="list-style-type: none"> • Reflect the waste management hierarchy, with the recycling and re-use of waste as a priority. • Promote the use of renewable forms of energy. • Seek to provide a steady flow of minerals to meet demand within the area. • Protect mineral resources from sterilisation by development, and seek to conserve minerals as far as possible. • Seek to minimise primary extraction and promote the use of secondary/recycled materials, and make adequate provision for this. • Support the use of co-products from minerals working. • Seek to conserve minerals as far as possible.
EC1	To retain existing jobs and create new employment opportunities	<ul style="list-style-type: none"> • Encourage the retention of existing jobs in the waste management and minerals sectors, and stimulate further employment creation. • Support local business development or investment
EC2	To improve access to jobs	<ul style="list-style-type: none"> • Seek to increase access for all to a range of jobs. • Encourage the location of employment opportunities in areas of greatest need.
EC3	To diversify and strengthen the local economy	<ul style="list-style-type: none"> • Stimulate private sector investment – generally and within each sector. • Stimulate diversification within the waste management and minerals sector. • Stimulate innovation and research relating to emerging waste management technologies, the recycling of mineral products and sustainable use of co-products. • Support improvements to the environmental performance of waste management and minerals companies.

3.2 Compatibility of SA and MWLP objectives

3.2.1 The SA Objectives are distinct from the Strategic Objectives of the MWLP. The Strategic Objectives of the MWLP are focused on specific outcomes relating to the production of minerals and provision of waste management capacity, whereas the SA Objectives cover the wider perspective required by

sustainability appraisal with respect to the social, economic and environmental impacts of the Plan.

- 3.2.2 Therefore, a key initial stage of the assessment is evaluating the extent to which the two sets of Objectives are aligned. The Strategic Objectives of the Plan are set out in Table 3.3. Table 3.4 summarises the analysis of compatibility of the two sets of Objectives.

Table 3.3: Local Plan Strategic Objectives

Local Plan Strategic Objectives	
1	That minerals and waste management developments will take due account of the issues of climate change, in particular through energy use and transport.
2	That opportunities will be taken to secure improvements to Cumbria's environment, communities and local economy, maximising potential benefits and avoiding adverse impacts.
3	That effective waste minimisation measures will be adopted and, following these, that waste, including radioactive waste, will be managed at the highest practicable level within the waste hierarchy. In order to secure this, the right type of waste management facilities that Cumbria needs to increase the amounts of its wastes that are re-used, recycled, or composted will be provided in the right places and at the right time in order to minimise the disposal of waste to landfill.
4	That waste will be managed as near as practicable to where it is produced without endangering people's health and without harming the environment.
5	That the minerals from Cumbria that are required to meet local, regional and national needs will be supplied from appropriately located and environmentally acceptable sources.
6	That the need for new mining and quarrying will be minimised by prudent use of resources and by supplies of alternative re-used and recycled materials.
7	That mineral resources will be identified and safeguarded.
8	That the economic benefits of minerals and waste management developments will be optimised without harming the environment.
9	That the overall quality of Cumbria's natural and historic environment will be protected and, where practicable, enhanced by high standards of design and operation in new developments and high standards of restoration once developments have been completed.
10	That the environmental impacts of minerals and waste management developments, including traffic, will be kept to a minimum by appropriate siting of facilities and sound working practices and that any unavoidable harmful impacts will be mitigated.
11	That there will be integral community and stakeholder involvement and ownership of initiatives and planning for sustainable minerals and waste developments.

Table 3.4: Compatibility Cross-Check between SA and Plan Objectives

	1	2	3	4	5	6	7	8	9	10	11
SP1	0	?✓	0	0	0	0	0	0	0	0	✓
SP2	0	✓	✓	✓	?✓	0	0	0	?✓	0✓	?✓
SP3	0	✓	0	0	0	0	0	0	0	0	0
SP4	0	✓	0	0	0	0	0	0	0	0	0
SP5	?✓	✓	0	✓	✓	0	0	?✓	✓	✓	✓
SP6	0	✓	0	0	0	0	0	?✓	0	0	✓
EN1	?	✓	✓	✓	?✓	?✓	0	✓	✓	✓	?
EN2	0	✓	0	✓	✓	?✓	0	✓	✓	✓	0
EN3	✓	✓	0	?✓	✓	?	?✓	?	?✓	✓	0
NR1	✓	✓	✓	✓	0	✓	0	0	0	✓	?
NR2	✓	✓	0	✓	?	?✓	0	0	✓	✓	?
NR3	0	✓	✓	?✓	0	?	0	0	✓	✓	?✓
NR4	✓	✓	✓	✓	✓	✓	✓	0	0	?✓	0
EC1	0	✓	?✓	0	0	0	0	✓	0	0	0
EC2	0	✓	0	0	0	0	0	✓	0	0	0
EC3	0	✓	0	0	0	0	?	✓	0	0	0
Key: Compatible ✓ Incompatible X No effect 0 Uncertain ?											

3.3 Approach to appraisals

3.3.1 All policies and site allocations in the MWLP have been assessed for performance against the 16 SA objectives and their assessment criteria, using the scale shown below. In some cases, the score is qualified, e.g. shown as '(-)' where there is some uncertainty about how significant the impact might be. The normal scoring range from '++' to '- -' is somewhat restrictive, and this approach provides more flexibility in characterising the relative scale of impacts from one site to the next.

- 3.3.2 Some objectives are assessed against a number of criteria, with the result that some sites may have both beneficial and adverse impacts. These are scored as '+/-', but if so, the colouring may indicate whether the overall impact is more likely to be adverse or beneficial.
- 3.3.3 Both the policy and site assessments have adhered to normal procedure for SA/SEA, in evaluating the impact of the policy or site without mitigation. Taking mitigation into account at this stage would involve a presumption that appropriate measures will be used when this cannot be guaranteed at present.
- 3.3.4 Each assessment concludes with a summary section, reviewing the overall findings, identifying secondary, cumulative and synergistic impacts, and proposing potential mitigation measures.

Table 3.5: Scoring criteria

++	Likely significant beneficial impact
+(+)	Likely moderate to significant beneficial impact
+	Likely moderate significant beneficial impact
(+)	Possible mildly significant beneficial impact
o	No significant impact identified
?	Nature and scale of impact cannot be assessed at this time, but some impact may occur
(-)	Possible mildly significant adverse impact
-	Likely moderate significant adverse impact
-(-)	Likely moderate to significant adverse impact
--	Likely significant adverse impact

3.4 Strategic alternatives

- 3.4.1 A key part of the plan making process is the consideration of strategic alternative options to the proposed policy approach or sites being taken forward. Guidance in relation to SA and the preparation of Local Plans confirms that the options put forward in the plan making process should be reasonable, realistic and relevant. The options should also be sufficiently distinct, in order to highlight the different sustainability implications of each, so that meaningful comparisons can be made.
- 3.4.2 In relation to the MWLP, the consideration of strategic alternatives has been an iterative process and the results of the ongoing preparation of minerals and waste policy for Cumbria since 2006. The plan making process has continued forward through several changes in legislation and policy at the national level, and some stages of preparation have been delayed or repeated as a result. The consideration of alternative options has varied depending on the particular issue to be managed and considered. This reflects the nature of the plan making process, that the development of policies is iterative and that different policies have different considerations that must be taken into account.

3.4.3 Appendix 6 sets out the strategic options considered in the preparation of this version of the MWLP. The story is not linear, and reference has had to be made to earlier SA reports prepared for the adopted Core Strategy and Generic Development Control Policies DPD's and the 2013 draft MWLP. In most cases, no strategic alternatives have been considered at this stage in the plan making process, as these have been considered at earlier stages. Appendix 6 summarises how each policy (including the site allocations policies) have evolved, and at what stage these were appraised. The relevant appraisals from earlier stages have also been published alongside this report in Appendices 7 and 8.

3.4.4 Sections 4, 5 and 6 of this report, that summarise the findings of the assessments of the strategic policies, development control policies and site allocations, discuss how the strategic alternatives to the preferred approach have been dealt with in this report.

3.5 Difficulties encountered

3.5.1 Policies in this SA apply to minerals and waste activities that have different environmental and other impacts, and which occur in different situations (i.e. urban or rural). Moreover, many of the strategic policies have no spatial expression, and this requires a judgement about whether an effect will occur at all and how significant or extensive it will be. This situation may occur because the impact will be localised, or it may depend on whether development occurs close to a particular type of sensitive receptor, or because the likely impact may be indirect.

3.5.2 Practical Guidance on SEA advises that where the impact is uncertain, consideration should be given to whether the plan or policy can be amended so that the effect is more definite. However, this applies to situations where it is difficult to judge whether the impact will be positive or negative. In assessing the MWLP, a different issue encountered is that in some cases it has proved difficult to judge the scale or extent of the impact. In these cases, a pragmatic approach has been adopted, as explained above, and the possibility of an impact has been recorded even if, in some cases, it may not be significant. In these circumstances, the possibility of a limited positive impact is indicated by a score (+). Showing no significant effect would not correctly identify the potential effect of the MWLP, even if this is assessed as slight or difficult to quantify at this stage.

4 ASSESSMENT OF THE VISION, OVERALL PLAN STRATEGY, STRATEGIC OBJECTIVES AND STRATEGIC POLICIES

4.1 Assessment of Vision, Plan Strategy and Strategic Objectives

4.1.1 Table 4.1 summarises the assessments of the MWLP's Vision, Overall Strategy and Strategic Objectives. The assessments address the SA Objectives comprehensively. The Vision provides a clear statement of the intended outcome of implementing the MWLP. The Overall Strategy provides a comprehensive statement defining the objectives and outcomes for planning for sustainable waste management and minerals extraction; it acknowledges that these activities can have detrimental effects on human and natural receptors. The Strategic Objectives define a comprehensive range of desired outcomes that pay particular attention to the need to strike a balance between the protection and enhancement of the environment and the county's economy. Full details of assessments are provided in Appendix 3.

4.2 Strategic Policies

4.2.1 Table 4.2 demonstrates that the Strategic Policies will have a range of positive impacts and very limited negative impacts on the SA objectives. However, there are also lots of areas where the policies have no impact at all, given the nature of the policies. The overall performance of the policies reflects that they are seeking to facilitate new minerals and waste development, whilst mitigating and controlling the negative impacts that may arise from this, and harness the opportunities for positive impacts.

4.2.2 Policies SP2 to SP11 concentrate on the strategic provision for minerals and waste development, and how and where this should come forward. The approach is based upon an up-to-date evidence base, and reflects the identified needs going forward. Therefore, these policies perform strongly against NR4, which specifically relates to resource efficiency and correlates with what the MWLP seeks to do. These policies also perform well together against NR1 on mitigating against climate change, reflecting that the policies make reference to bringing new development forward, but in the most sustainable way, including minimising transport miles, promoting opportunities for the development and application of clean/carbon efficient technologies, supporting energy from waste facilities and contributing to the use of renewable energy sources, as well as seeking a proactive approach to climate change adaptation within the minerals and waste sectors.

4.2.3 Policies SP2 to SP10 also perform strongly against EC1 and EC3. This reflects the fact that support of the minerals and waste industries provides a degree of certainty about the future, which local businesses in these sectors can take into account in their own strategic and investment decisions.

- 4.2.4 Policies SP12 to SP17 focus on high level environmental objectives, and implementation and decision making mechanisms in the planning system. Therefore, they have a wider range of positive impacts, including against the environmental SA objectives. There is an extent to which some of the intentions of these policies repeat or overlap with the Development Control Policies.
- 4.2.5 A summary of the overall outcomes/conclusions of the SA for each site is set out in Table 4.3, following the summary in Table 4.2. Full details of assessments are provided in Appendix 3.

4.3 Strategic alternatives

- 4.3.1 Appendix 6 sets out the options considered as alternatives to the Strategic Policies. No new alternatives have been considered that necessitated appraisal at this stage. This is because the decisions taken this time have built upon options considered in earlier stages of the development of minerals and waste policy for Cumbria, and these have been revisited rather than new ones generated.

Table 4.1: Summary of assessment of the Spatial Vision, Overall Strategy and Strategic Objectives

SA OBJECTIVE	SP1: Democratic Processes	SP2: improved access	SP3: housing supply	SP4: Education and Training	SP5: health and well-being	SP6: impact on the community	EN1: impact on biodiversity	EN2: impact on landscape	EN3: built environment	NR1: air quality and GHGs	NR2: water resources	NR3: soil resources and geodiversity	NR4: resource efficiency	EC1: employment levels	EC2: access to employment	EC3: the local economy
Spatial Vision	+	++	++		(+)					(+)			++	(+)		
Overall Strategy		++	+(+)		+		++	++	++	++	++	(+)	++	+(+)		+
Strategic Objectives	?	++	(+)		++	?	++	++	++	++	++	?	++	++		(+)

Table 4.2: Summary of assessment of the Strategic Policies⁶⁷

SA OBJECTIVE		SP2: improved access	SP3: housing supply	SP4: Education and training	SP5: health and well-being	SP6: impact on the community	EN1: impact on biodiversity	EN2: impact on landscape	EN3: built environment	NR1: air quality and GHGs	NR2: water resources	NR3: soil resources and geodiversity	NR4: resource efficiency	EC1: employment levels	EC2: access to employment	EC3: the local economy
Policy	Summary title															
SP1	Presumption in favour				++	++	++	++	++	++	++	++	++	++	++	++
SP2	Provision for waste	+								+			+	(+)		(+)
SP3	Waste capacity									+			++	+		+
SP4	Transparent decision making				+		+	+	+	++	+	+	++			
SP5	Development criteria for LLW									(-)			+			
SP6	Higher activity radioactive wastes management				?			?		+/-			+			
SP7	Minerals provision and safeguarding									+			++	+		+
SP8	Strategic areas for minerals												+	+		+
SP9	Marine dredged aggregates				(+)		(+)	(+)			+		++			
SP10	Industrial limestones						?	?	?			?	+			
SP11	Peat						+	+		++		++	++			
SP12	Climate change				+		+	(+)	(+)	+	+		+			+
SP13	Economic benefit			+								(+)		++		+
SP14	Environmental assets				(+)	(+)	++	++	+	+	+	+				
SP15	Restoration and afteruse				+	+	++	++	+	+	+	+	+	(+)		(+)
SP16	Section 106 planning obligations	+			+	+	+	+	+	+	+	+				
SP17	Monitoring and enforcement				+		+	+	+		+	+				

⁶ Objective SP1 refers to issues that the MWLP Strategic Policies will not address; therefore, they are omitted from the summaries provided in this section

⁷ In these tables an assessment of no significant impact is shown as a blank cell rather than the 'o' character, which is used in the detailed tables only

Table 4.3: Conclusion of the assessments of the Strategic Policies

<p>Policy SP1 Presumption in favour of sustainable development: Inherently and inevitably self-supportive. Nevertheless, the policy text makes clear that there is an onus on the applicant to comply with Plan policies developed to deliver sustainable outcomes, and makes clear, as far as possible at this stage, what will happen in exceptional circumstances.</p>
<p>Policy SP2 Provision for waste: Given the nature of the policy, it performs positively against those sustainability objectives that support the retention and growth of the waste management industry in Cumbria, in order to meet objectively assessed waste needs. There are also indirect economic benefits of the policy, as it provides strategic planning support and certainty to the waste industry of the types of proposals that are needed and supported in planning terms.</p>
<p>Policy SP3 Waste capacity: This is a key policy for the MWLP, setting out how the strategic waste management needs for Cumbria will be met. The policy allows for the provision of the range of waste management facilities required to deliver Cumbria's waste management needs in accordance with the waste hierarchy. Given the strategic nature of the policy, and that it is not site specific, it has no direct impact on many of the SA objectives. There is the potential for new waste management facilities to have a negative impact upon a number of the social and environmental objectives, but it is not the role of this policy to control these, as these are covered by other policies in the MWLP. The policy will have positive impacts upon NR4 and the economic objectives, in that it supports the future development of the waste industry in Cumbria and the economic benefits arising from this.</p>
<p>Policy SP4 Transparent decision making: This policy ensures that the optioneering process for new or extended radioactive waste facilities, demonstrates consideration of the three principles (sustainable development, precaution and proximity) and the waste hierarchy. These criteria are sometimes not given enough weight or are decided before a project is made public by an operator, and presented as a fait accompli; the policy ensures that these principles have been considered. It is not intended that the policy is used to demand that a project be undertaken in a certain way or that one principle is of greater weight than another.</p>
<p>Policy SP5 Development criteria for low level radioactive waste sites: This policy is a requirement of national policy. The criteria in this policy reflect that if a new facility was to come forward in Cumbria, in addition to those already located in the county, it is likely to serve a wider catchment at a regional or national level. This may lead to additional road movements. A criteria based approach is taken in the policy, reflecting the need for local level guidance should a site be put forward, and complemented by specific site considerations that are developed in the site allocations policies. Given the nature of the policy, there is no direct impact on many of the objectives, although there is a positive impact upon NR4 and potential negative impacts upon greenhouse gas emissions, given the potential traffic implications associated with new facilities.</p>
<p>Policy SP6 Higher activity radioactive wastes treatment, management and storage: The policy seeks to apply existing management standards, controls and mitigation to any future development of facilities that involve the management of higher activity radioactive wastes. It reflects the need to maintain the operation of the Sellafield site as a unique facility in the UK for managing these materials, but requires both the operator of this site and of any other facilities that may be proposed, to provide evidence that alternative locations and techniques are impractical, indirectly seeking to limit any additional future impacts on the county.</p>

Policy SP7 Minerals provision and safeguarding: The policy has a positive impact on a limited number of sustainability objectives, as its primary aim is to ensure a steady and adequate supply of mineral resources over the Plan period, as well as the protection and unnecessary sterilisation of minerals resources in connection with non-minerals development that may be proposed. The policy is required for compliance with the NPPF, and its direct impact is provision of minerals resources and protection of existing mineral resources and operations from being sterilised by new or nearby development. This works alongside policy DC15 of the MWLP, which sets out the mineral safeguarding policy, and Site Allocations Policies SAP4 and SAP5.

Policy SP8 Strategic areas for new mineral development: Given the nature of this policy, it does not have direct impacts upon the majority of the SA objectives as, although it sets out the strategic areas for new minerals development, it does not seek to address the environmental, social or economic impacts arising from this, as these are covered by other policies in the Plan. The policy has a positive impact on ensuring adequate minerals provision, and promoting more efficient use of land, as it aims to ensure that economically important minerals resources are not sterilised. There is no clear link with any of the other SA objectives, which is to be expected given the strategic nature of this policy, and the detailed impacts of identifying these areas have been assessed through the Site Allocation Policies SAP4 and SAP5.

Policy SP9 Marine dredged aggregates: This policy is supportive of development that will enable an increased use of marine dredged aggregate. A number of slightly positive impacts are likely against the environmental objectives, given that the policy seeks to prevent unacceptable environmental impacts. The policy would work in conjunction with the Development Control Policies, to assess applications coming forward. However, the policy is high level and includes no detail of the types of development this policy covers (e.g. on shore facilities to enable off shore dredging) that may be anticipated to come forward under this policy, or what would be deemed a suitable location or how future development may link to current marine dredged activity.

Policy SP10 Industrial limestones: The impact of this policy on most of the SA objectives is uncertain, as this would be dependent on the location of sites in relation to sensitive receptors and the details of operation and restoration or, in the case of sustainable transport issues, location in relation to transport routes and the end market for the mineral. However, the policy makes a positive contribution to Objective NR4, in that it secures the future provision of this mineral, in line with known demand and current uses, which is in conformity with national guidance on this matter.

Policy SP11 Peat: This policy delivers a number of sustainability benefits. In particular, by restricting peat extraction to sites that have previously been worked for peat, and by limiting any time extensions for the removal of peat to only what is necessary to facilitate appropriate restoration of the site, the policy will lead to the protection of high quality natural environments and increase the likelihood of peat bogs continuing to function as a 'carbon sink'. As a result, it is anticipated that the policy would have a significant positive impact on objectives NR1, NR2 and NR4 and some positive impact on objectives EN1 and EN2. The policy reiterates and supports national policy, whilst reflecting the local circumstances that peat is currently worked at Solway Moss.

Policy SP12 Climate change and adaptation: This policy makes an important contribution to sustainability, as it seeks to ensure that the impact of minerals and waste developments on the causes of climate change is minimised, and that future adaptability to climate change is addressed through restoration schemes. This

policy should be applied alongside Development Control Policies DC1 on traffic and transport, DC7 and DC8, which relate to climate change, as well as DC20 on water and DC22 on restoration and afteruse. There is strong correlation between these policies and they will need to be implemented together.

Policy SP13 Economic benefit: The policy has a very positive impact in both the short term and the long term on objective EC1, in that the policy promotes economic benefits and the realisation of the economic benefits of new minerals and waste development, both for these industries and in the wider economy. The policy will also have a positive impact on objective SP4, as job creation can improve people's skills and provide training.

Policy SP14 Environmental assets: The policy would have a direct positive impact upon biodiversity and, through this, a more indirect but still significant impact upon a range of environmental objectives, such as protecting against flooding and improving air quality. This policy will work alongside Development Control Policies DC16 to DC22, which relate to Cumbria's environmental assets.

Policy SP15 Restoration and afteruse: The policy will have a positive impact on a large number of objectives, including those relating to biodiversity, landscape character, water quality, climate change and human health. The overall impact will be dependent on the nature of the restoration proposed and its successful implementation.

Policy SP16 Section 106 planning obligations: The policy has a positive impact upon the environmental and social objectives, as the policy provides a mechanism by which to control any adverse environmental or social impacts through appropriate mitigation.

Policy SP17 Monitoring and enforcing planning control: This policy provides a mechanism for taking enforcement action and, therefore, has a positive impact on the majority of the SA objectives relating to amenity and the environment, as it seeks to protect amenity and the environment and provides the mechanism for when harm is identified.

5 ASSESSMENT OF THE DEVELOPMENT CONTROL POLICIES

5.1 Development Control Policies

- 5.1.1 The Development Control Policies perform strongly against SP5 on health and well-being and the environmental objectives, as shown in Table 5.1. This reflects the fact that they seek to ensure that all the potential impacts arising from new minerals and waste development are identified and, where necessary, controlled through the planning application process.
- 5.1.2 The impacts of policies DC12 and DC13 have been less easy to predict, and there is a degree of uncertainty about how these policies would be implemented. This includes the extent to which they interact with guidance already published at the national level, and how the decision maker and applicants would interpret and apply the criteria, taking into account local circumstances.
- 5.1.3 A summary of the overall outcomes/conclusions of the SA for each site is set out in Table 5.2, following the summary in Table 5.1. Full details of assessments are provided in Appendix 4.

5.2 Strategic alternatives

- 5.2.1 Appendix 6 sets out the options considered as alternatives to the Development Control Policies. No strategic alternatives have been considered to these policies, other than to have or not have a policy. Essentially this is a “do something” or a “do nothing” scenario.
- 5.2.2 The majority of the Development Control Policies are carried forward from existing adopted policies, with changes to bring them up-to-date; are some new policies were added at the Regulation 18 stage of work on the Plan, in order to fill gaps identified in the decision making framework.

Table 5.1: Summary of assessment of the Development Control Policies⁸⁹

SA OBJECTIVE		SP2: improved access	SP3: housing supply	SP4: Education and training	SP5: health and well-being	SP6: impact on the community	EN1: impact on biodiversity	EN2: impact on landscape	EN3: built environment	NR1: air quality and GHGs	NR2: water resources	NR3: soil resources and geodiversity	NR4: resource efficiency	EC1: employment levels	EC2: access to employment	EC3: the local economy
Policy	Summary title															
DC1	Traffic and transport	++			(+)			(+)	(+)	++					+	
DC2	General criteria				++		++	++	++	+	++					
DC3	Noise				++		(+)	(+)	+							
DC4	Quarry blasting				+				(+)							
DC5	Dust				++		+	+	++	++						
DC6	Cumulative environmental impacts				+		+	+	+	+	+	+				
DC7	Energy from Waste									++			++			
DC8	Renewable energy use and carbon reduction									++			++			
DC9	Criteria for waste management facilities				+			+	+			+	+			
DC10	Criteria for landfill and landraise				(+)/-		(+)/-	(+)	(+)	+			+			
DC11	Inert waste for agricultural improvement										++	++	+			
DC12	Criteria for non-energy minerals				?		?	?	?			?	+	(+)		(+)
DC13	Criteria for energy minerals				?		?	?	?	-	?	?	+	(+)		(+)
DC14	Review of Mineral Permissions				+		+	+	+	+	+	+				
DC15	Minerals safeguarding				+				+				++			
DC16	Biodiversity and geodiversity				+		++	+			+	+				
DC17	Historic environment				+		(+)	+	++							
DC18	Landscape and visual impact				+	+	+	++	++							
DC19	Flood risk				+		+		+			+				
DC20	The water environment				(+)		+			+	++	+				
DC21	Protection of soil resources						+			+	+	++				
DC22	Restoration and afteruse	+			+	+	++	++	+	+	+	+	+	+		+

⁸ Objective SP1 refers to issues that the MWLP Development Management Policies will not address; therefore, they are omitted from the summaries provided in this section

⁹ In these tables, an assessment of no significant impact is shown as a blank cell rather than the 'o' character, which is used in the detailed tables only

Table 5.2: Conclusions of the assessments of the Development Control Policies

<p>Policy DC1 Traffic and transport: Overall, the impact of the policy is assessed as generally positive, supporting sustainable and efficient use of transport in the minerals and waste sectors, which will contribute to other objectives, such as climate change mitigation. The policy is not overly restrictive, insofar as it defines conditions that have to be satisfied for developments that do not conform to the main requirements, and it includes appropriate measures to protect general impacts on the community.</p>
<p>Policy DC2 General criteria: This policy sets out the general criteria that minerals and waste proposals would need to comply with, in order to minimise potential operational nuisances on sensitive receptors. The policy supports the achievement of Sustainability Objectives SP5, EN2, EN3 and NR1, as it requires proposals to demonstrate that they have been considered, and been designed, in conjunction with the impacts on the natural and historic environment and human health from potential nuisances such as noise, dust, traffic and increased flood risk.</p>
<p>Policy DC3 Noise: An essential policy delivering necessary noise protection measures primarily for the benefit of humans and the built environment. By identifying the appropriate noise levels, the policy supports Objectives SP5 and part of EN2 and EN3, as it assists in contributing to a healthy and safe working and living environment. The policy seeks to minimise potential health impacts associated with noise and, therefore, has the potential to positively impact on the sense of well-being of people and helping to protect countryside tranquillity.</p>
<p>Policy DC4 Quarry blasting: Policy DC4 supports Objective SP5, as placing maximum levels for ground vibration in relation to quarry blasting, and implementing a monitoring system, will help to safely minimise impacts associated with mineral extraction activities. This will help to provide a positive sense of well-being for people and help minimise any impacts to human health and the built environment.</p>
<p>Policy DC5 Dust: The policy provides guidance on dust emissions arising from minerals and waste developments. The requirement of a Dust Assessment Study to accompany a planning application supports Objectives SP5 and parts of Objectives EN3 and NR1. By seeking to reduce/control dust emissions from minerals developments/workings, this policy will help to create a healthy and safe living and working environment, which supports the well-being of people and their quality of life.</p>
<p>Policy DC6 Cumulative environmental impacts: The policy will have a positive impact on a range of objectives, through protecting against the adverse cumulative impact on such things as biodiversity, local amenity and landscape character.</p>
<p>Policy DC7 Energy from waste: This policy specifically deals with the requirements for energy from waste development; it does not specifically set out the locational requirements, as is done for other types of waste management development in other policies in the Plan (e.g. DC9). The policy does make reference to proposals needing to be in conformity with all other relevant policies in the Plan, e.g. biodiversity, visual impact and flood risk policies. Whilst the policy does not have an impact against many of the social and economic objectives, it has a positive impact against those objectives that seek to promote renewable forms of energy and reduce greenhouse gases.</p>

Policy DC8 Renewable energy use and carbon reduction on existing minerals and waste sites: This policy provides criteria to encourage low carbon energy generation on minerals and waste sites, without adversely affecting the operations or restoration of the sites. It does not specifically set out the locational requirements, as is done through other policies in the MWLP. Whilst the policy does not have an impact against many of the social and economic objectives, it has a positive impact against those objectives that seek to promote renewable forms of energy and reduce greenhouse gases.

Policy DC9 Criteria for waste management facilities: This policy sets out criteria for guiding the different waste management facilities required to the most suitable locations, in order to avoid unacceptable adverse impacts on surrounding land uses. However, it does not cover all types of waste management facilities, such as energy from waste. Whilst policy DC7 of the MWLP specifically deals with the requirements for energy from waste development, it does not specifically set out the locational requirements, as is done through this policy for other types of waste management development. Whilst the policy does not have an impact against many of social and economic objectives, it has a positive impact against those objectives that seek to protect amenity, the environment and natural resources. It seeks to control and minimise conflicts and any perceived or potential negative impacts of new waste management facilities upon nearby land uses and users.

Policy DC10 Criteria for landfill and landraise: The policy seeks to ensure that any proposals for additional landfill will only be permitted if it can be demonstrated that measures have been taken to drive wastes up the waste hierarchy, promotes the use of renewable forms of energy and encourages the use of sustainable forms of transport. The policy, therefore, contributes to parts of Objectives, NR1 and NR4. The policy scores well in relation to a number of the environmental policies and contributes to Objective SP5, by ensuring that any proposals take into consideration other environmental and community policies set out within the MWLP, and their proximity to any sensitive receptors. The reference to Policy DC18 in this policy will help to contribute to meeting Objective EN2. Strategic Policy SP3 Waste capacity complements policy DC10.

Policy DC11 Inert waste for agricultural improvement: Many policies in the MWLP are likely to be relevant to proposals for the use of inert waste for agricultural improvement, such as policies DC1 and DC16. However, this policy sets out the specific priorities for inert waste: recycling, use in restoration schemes or landfill engineering. It also includes criteria for the use of inert waste for the improvement or reclamation of agricultural land. Whilst the policy has no direct impact on many of the social or environmental objectives, it does have a positive impact on the objectives relating to agricultural land, water quality and flood risk.

Policy DC12 Criteria for non-energy minerals development: The policy provides a presumption in favour of the extraction of non-energy minerals within the Preferred Areas, thus contributing to Objectives NR4, EC1 and EC3. It also provides the criteria under which extraction proposals outside these areas will be permitted, which includes a requirement to meet levels of supply and local building stone needs, thereby contributing to the achievement of Objective EN3. The policy could potentially have a positive impact upon the majority of the objectives, but this will be dependent on the nature of the proposals being brought forward and their location, which cannot be determined at this stage.

Policy DC13 Criteria for energy minerals: This is an extensive policy covering the range of oil and gas development, including conventional and unconventional activities, as well as coal. Given the high level and general nature of the criteria in the policy, and that it does not include specific locations, the majority of the impacts are uncertain at this time. However, it provides a framework along with other policies in the MWLP and national policy, for energy mineral development proposals to be determined, taking into account a range of environmental, social and economic considerations. The policy could potentially have a positive impact upon the majority of the objectives, but this will be dependent on the nature of the proposals being brought forward and their location, which cannot be determined at this stage.

Policy DC14 Review of Mineral Permissions: The policy focuses on the need to minimise the potential effects from minerals developments on communities and all aspects of the environment, including in restoration and afteruse. This supports the attainment of Objectives SP5, EN1, EN2, NR2 and NR3 and part of Objectives EN3 and NR1.

Policy DC15 Minerals safeguarding: The policy has a positive impact on a limited number of sustainability objectives, as its primary aim is the protection and unnecessary sterilisation of minerals resources. The policy does not seek to be overly restrictive, but to provide a mechanism by which interactions with other types of non-minerals development can be assessed and dealt with through the planning application process. The policy is required for compliance with the NPPF and its direct impact is protection of existing mineral resources and operations from being sterilised by new or nearby development; it is also intended to protect non-minerals developments that may be adversely impacted by mineral operations. All of the Mineral Safeguarding Areas together, are contiguous with the Mineral Consultation Area.

Policy SAP5 sets out the strategic infrastructure for both waste and minerals, such as railheads and wharves, which require safeguarding; all of the allocations identified lie within the Mineral Consultation Areas and, thus, the Mineral Consultation Area.

Policy DC16 Biodiversity and geodiversity: The policy will allow for the provision of adequate development for minerals and waste facilities, where they are acceptable and appropriate in terms of their impacts on biodiversity and geodiversity. The policy has a direct, positive impact upon many of the environmental objectives, and in particular those relating to biodiversity and geodiversity. This reflects the nature and scope of the policy; consequently, it has no direct impact on the majority of social and economic objectives.

Policy DC17 Historic environment: The policy explicitly seeks to protect the historic environment. The policy will have a positive impact on public amenity, health and well-being, as well as positive impacts on landscape and townscape character. Given the restrictions of the policy, economic activity that impacts negatively on the historic environment would be controlled.

Policy DC18 Landscape and visual impact: The policy has a positive impact in terms of seeking to protect landscape character and distinctiveness, as it states that development should be compatible with the distinctive characteristics and features of Cumbria's landscapes. It would also help achieve part of Objective EN3, through seeking avoidance of significant adverse impacts on the historic landscape. The policy also provides guidance in relation to the design and location of proposed mineral/waste facilities with reference to the built environment.

Policy DC19 Flood risk: This policy aims to steer development away from sites most at risk from flooding. Therefore, the policy has a positive impact upon the objective of reducing flooding and those objectives that are supported by effective management of flood risk, including biodiversity, built environment and local amenity.

Policy DC20 The water environment: The policy has a direct positive impact upon the objectives of protecting water quality and resource efficiency, protecting biodiversity and climate change. Given the specific remit of this policy, it has no impact upon the majority of social objectives and none of the economic objectives.

Policy DC21 Protection of soil resources: This policy has a direct, positive impact upon soil quality and positive impact upon several of the other environmental objectives, because of the importance of soil to the ecosystem.

Policy DC22 Restoration and afteruse: This policy will have a positive impact on a large number of objectives, including those relating to biodiversity, landscape character, water quality, climate change and human health. Where possible, it would also seek to increase public access and to promote mixed/alternative after uses, which would support, for example, renewable energy, tourism and employment. The overall impact will be dependent on the nature of the restoration proposed and its successful implementation.

6 ASSESSMENT OF THE SITE ALLOCATION POLICIES

6.1 Waste management sites

- 6.1.1 Table 6.1 provides the summaries for the waste site allocations identified in policies SAP1 to SAP3 inclusive. All sites have the potential to give rise to a number of potentially significant adverse impacts, but this is an inevitable consequence of waste management activities.
- 6.1.2 The two sites allocated for replacement Household Waste Recycling Centres generally perform well. The Kendal site creates certain new impacts due to its rural town-edge location. While these can be mitigated to some extent, the site replaces an existing facility that is accessed through a Conservation Area and which contributes to traffic congestion in the town centre area - though the removal of these impacts cannot be reflected in the assessment. The other site at Lillyhall will increase travel distances for residents in parts of Workington and settlements to the south that are served by existing facilities, but these are no longer suitable and relocation will result in the new HWRC being co-located with other waste facilities; this offers some synergies affecting traffic and other impacts that would not be generated if the existing sites are retained. It should be noted that the existing HWRCs cannot, under terms of municipal waste sub-contract, close until the replacement sites are built and ready to operate, otherwise targets for recycling and diversion of waste from landfill cannot be met.
- 6.1.3 Most of the sites allocated for treatment or recycling facilities perform well against criteria relating to transport, resource efficiency and maintaining (and in some cases stimulating) employment. Allocations that expand or co-locate capacity with existing waste facilities also tend to perform better, because it is anticipated that current mitigation measures will address impacts to some extent, and because the suitability of the location for waste use is already proven.
- 6.1.4 However, two sites, if they come forward, will need to be developed sensitively, or they could give rise to significant adverse impacts. The CA11 Willowholme site lies in the functional floodplain of the River Eden and, while this does not limit its use in principle, there are other sites in the Carlisle urban area that occupy lower risk locations and that perform better under the Flood Risk Assessment Sequential Test, while this site does not appear to pass the Exception Test. The site operates as a waste management site and is located adjacent to a gas depot and a waste water treatment works. During its operational life, of at least 25 years, the site has flooded many times, most notably in 2005, following which, it was decided to undertake flood defence work along that side of the entire river loop. Despite this, the site flooded again in 2015, but is still operational.
- 6.1.5 The CA30 Kingmoor Road site, is occupied by a recycling facility that is being refitted following a fire. Initially, the proposal covered both the resumption of waste activities on the site and a physical extension to the north. However, following its consideration in the Supplementary Sites consultation in late 2015, it was decided

that the northerly extension should be removed from the site allocation; this also removed the need to relocate, and secure compensatory habitat for, the nearby great crested newt population. A survey of the use of the site by protected species, following the period of inactivity caused by the fire, will still be needed. Inclusion of additional land to the south of the allocation was also considered, and agreed, in the Supplementary Sites consultation; this would potentially allow increased throughput at the restored facility.

- 6.1.6 While the site is well located relative to waste sources in the town and nearby rail sidings, a low bridge places some limitations on access. Its close proximity to housing means that it is not an appropriate location for an energy from waste facility on any scale; therefore, the site does not perform as well against the SA Objectives as the nearby alternative of CA31 Kingmoor Park East.
- 6.1.7 Three sites are allocated for the treatment, management, storage and/or disposal of radioactive wastes. The existing Low Level Waste Repository near Drigg (allocation CO35), gives rise to a number of potential impacts due to its proximity to human and nature conservation receptors. However, these impacts are mitigated by existing engineering solutions that reflect the relative level of activity of the materials.
- 6.1.8 Sites CO32 (land adjacent to Sellafield) and CO36 (Sellafield complex) provide alternatives for continued storage/disposal of decommissioning wastes arising at Sellafield. One possibility at either site is a replacement landfill, needed around 2025 when the current facility is full, which will be engineered in a manner to reflect the lower activity level of the wastes. As well as this potential for site CO32, it also has the potential for long-term storage of wastes, linked to an approved Sellafield site decommissioning strategy. Furthermore, it is intended that there is a flexible approach to this allocation, whereby any needs identified by Sellafield Ltd. for space to temporarily store clean waste, arising during the demolition or excavation stages of decommissioning, could also be accommodated.

6.2 Mineral sites and associated infrastructure

- 6.2.1 Table 6.2 summarises the scoring of the Preferred Areas and Areas of Search for minerals identified in Policy SAP4; it shows that all additional proposed minerals sites have at least one moderately significant adverse impact, though this is to be expected, as a result of the open nature of working at these sites. Moreover, most of the proposals are for lateral extensions of current workings and it is expected that operations at the new sites would continue at the same level as the existing sites. Some existing impacts would, in that case, continue but not necessarily worsen, and would continue to be offset by the corresponding existing mitigation measures. Other potential impacts could arise, or change, due to the nature of the areas and their surroundings.

6.2.2 Most sites have a number of positive impacts, specifically:

- contribution of building materials to meet local demand and achieve targets for housing growth;
- resource efficiency is assessed as positive for the same reason. The sites would supply primary materials and do not help to increase the use of secondary aggregates. However, if these extensions are not identified, it could result in shortages that would have to be met from sources outside the county, which would be less sustainable than local supply in several respects.

6.2.3 One of the sites could generate potentially significant adverse impacts, unless developed sensitively; this reflects the exposure of nearby human receptors (usually properties, but sometimes other assets) to specific impacts from quarrying or road transport:

- Stamphill allocation for open-cast gypsum extraction. The assessment considered that several pathways exist that could lead to contamination of important nature conservation designations in the vicinity (recognising that many of these impacts could be mitigated to provide no or very limited threat).

6.2.4 Table 6.3 summarises the scoring of the existing and potential railheads and wharves identified in SAP5 for safeguarding, and shows that the assessment of proposed safeguarded railheads is largely neutral or positive. This outcome is unsurprising, since most of them are already in use in connection with minerals (and waste in some cases) workings. Provided there is no change in the scale and timing of use of these facilities (e.g. increased movements at night), then safeguarding itself would not give rise to any new impacts, but it would ensure that key infrastructure is protected, together with the contribution it makes to local industry and the jobs it supports.

6.2.5 Unsurprisingly, all sites score well against objectives SP2 and NR4, as they support the use of more sustainable non-road modes of transport, with consequent benefits in terms of reduced noise, vibration, dust and greenhouse gas generation, that will benefit the county and a wider area.

6.2.6 None of the sites to be safeguarded were assessed as having a significant adverse impact. However, one site, the former rail siding at Salthouse near Millom, will need to be developed sensitively, if it is given planning permission for reinstatement in the future. The siding previously operated for several years to serve the extraction of nationally important roadstone materials from nearby Ghyll Scaur Quarry. Adverse impacts arose as a result of the use of road transport to deliver stone from the quarry to the siding, but this could be significantly reduced by use of a conveyor belt.

6.2.7 In relation to all the site assessments (minerals, waste and safeguarded infrastructure), it is important to recognise that a site that could generate a range of adverse impacts will not necessarily be unsuitable for development, provided that they can be mitigated effectively. However, this is likely to increase the cost of

developing it, which may make it less attractive or sustainable than other sites that give rise to fewer adverse impacts.

- 6.2.8 Tables 6.1 to 6.3 summarise the scoring of the principal groups of sites against the sustainability framework, and a summary of the overall outcomes/conclusions of the SA for each site is set out in Table 6.4. Full details of assessments are provided in Appendices 3 to 5.

Table 6.1: Summary of assessment of sites for Household Waste Recycling Centres, waste treatment facilities and radioactive waste facilities identified in Site Allocation Policies SAP1, SAP2 and SAP3¹⁰¹¹

SA OBJECTIVE			SP2: improved access	SP3: housing supply	SP5: health and well-being	SP6: impact on the community	EN1: impact on biodiversity	EN2: impact on landscape	EN3: built environment	NR1: air quality and GHGs	NR2: water resources	NR3: soil resources and geodiversity	NR4: resource efficiency	EC1: employment levels	EC2: access to employment	EC3: the local economy
Allocation	District	Function														
AL37 Lillyhall	Allerdale	HWRC	-		+(+)	+	+	++	++	(+)/-	++	+(+)	+			
SL1B Kendal Fell	S.Lakeland	HWRC	+		(+)	++	++	-	+/(-)	+/(-)						
AL3 Oldside	Allerdale	Treatment	++		+	(-)	-		(+)	(+)	?	+	++	+	+	?
AL8 Lillyhall	Allerdale	Treatment	+		+(+)	+	+	++	++	(+)	++	+(+)	++	(+)	+	?
AL18 Workington	Allerdale	Treatment	++		+	?	(-)		+	+	?	+	++	++	+	?
CA11 Willowholme	Carlisle	Treatment	+		+	(+)	-	?	-	+/-	-	+	+	+(+)	(+)	?
CA30 Kingmoor Rd	Carlisle	Treatment	+		-(-)	(-)	-	-	(-)	?	-	-	+	(+)	+	?
CA31 Kingmoor Pk	Carlisle	Treatment	+(+)		++	(+)	+	(+)	+(+)	+	(+)	+(+)	+	+	+	?
CO11 Bridge End	Copeland	Treatment	+		(-)		?	?	+/-	+	(-)	(+)/-	(+)	+	+	
CO32 adj.Sellafield	Copeland	Radwaste			-(-)		-(-)	(-)	-	+(+)	-	-	+(+)	(+)/?		
CO35 LLWR	Copeland	Radwaste	+(+)		?		-			(+)	-		+	(+)		
CO36 Sellafield	Copeland	Radwaste			?		-		(+)	(+)	-	?	++	(+)		

¹⁰ Objectives SP1 and SP4 refer to issues that the MWLP sites will not address; therefore, they are omitted from the summaries provided in this section

¹¹ In these tables an assessment of no significant impact is shown as a blank cell rather than the 'o' character, which is used in the detailed tables only

Table 6.2: Summary of assessment of minerals sites identified in Site Allocations Policy SAP4

SA OBJECTIVE				SP2: improved access	SP3: housing supply	SP5: health and well-being	SP6: impact on the community	EN1: impact on biodiversity	EN2: impact on landscape	EN3: built environment	NR1: air quality and GHGs	NR2: water resources	NR3: soil resources and geodiversity	NR4: resource efficiency	EC1: employment levels	EC2: access to employment	EC3: the local economy
Preferred Areas	District	Material	Status														
M18 – Stamphill	Eden	gypsum	new	++	+	-(-)		-(-)	-	(+)/-	(+)	-	-	+	+	+	
M27 – Roosecote	Barrow	sand & gravel	extension		+	-		(-)	(-)	(-)	(-)	(-)	(-)	++	(+)		
Areas of Search	District	Material	Status														
M5 – High Greenscoe	Barrow	mudstones	extension		++	-	?	?	?	(-)		?		+	+		
M6 – Overby/High House	Allerdale	sand & gravel	extension		(+)	(+)		+/-	(+)	+/-		-	?	(+)			
M8 – Cardewmires	Carlisle	sand & gravel	extension		(+)	?		?	?	+/-		-	+/-	+			
M10 – Silvertop	Carlisle	limestone	extension		++			(-)	(-)	(-)		?		+	+		
M11 – Kirkhouse	Carlisle	sand & gravel	extension		+	-(-)		-(-)	-		-	(-)	-(-)	+(+)			
M12 – Roosecote	Barrow	sand & gravel	new		+	-		(-)	-	(-)	-	-	(-)	(+)			
M14 - Kirkby Slate	SLDC	slate	extension		+	(-)	(+)	+/-	?	?		-		+(+)	+	?	
M15 - Peel Place	Copeland	sand & gravel	extension		++	-(-)		-	-	+/-	+/-	(-)	?	+			
M16 – Holmescales	SLDC	roadstone	extension	(-)		-(-)	?	-		-(-)	-			+	+		
M30 – Roan Edge	SLDC	roadstone	extension			-			?			?	(+)	+	+		
MSA	District	Material	Status														
M24 – Derwent Howe	Allerdale	secondary agg	continuation			(-)	-	+/-	+/-	+	?	(-)	+/-	++	(+)		?

Table 6.3: Summary of assessment of existing and potential railheads and wharves for safeguarding in Site Allocations Policy SAP5

SA OBJECTIVE			SP2: improved access	SP3: housing supply	SP5: health and well-being	SP6: impact on the community	EN1: impact on biodiversity	EN2: impact on landscape	EN3: built environment	NR1: air quality and GHGs	NR2: water resources	NR3: soil resources and geodiversity	NR4: resource efficiency	EC1: employment levels	EC2: access to employment	EC3: the local economy
Railhead/Wharf	District	Status														
AL18 - Workington Port	Allerdale	operational	++		+/-					+(+)				(+)		
AL32 – Siddick sidings	Allerdale	potential	++		(+)/-	?	(-)		(+)/-	+(+)		(-)				
AL38 – Innovia sidings	Allerdale	operational	(+)							+			(+)			
AL39 - Silloth Port	Allerdale	operational	+							+			+	+		+
BA26 - Barrow Port	Barrow	operational	++						(+)/?	+(+)				(+)		
CO35 - LLWR rail spur	Copeland	operational	++							++						
CO36 - Sellafield rail spur	Copeland	operational	++							+(+)						
M31 – Salthouse sidings	Copeland	potential	++		-		?	-	-/(-)	++	?	?	+	(+)		
M34 – Kingmoor sidings	Carlisle	operational	++		+/?					+				?		
M35 - Shap Beck quarry sidings	Eden	operational	++				?			++			+	(+)		
M36 - Shapfell quarry sidings	Eden	operational	++				?			++			+	+		
M37 - Shap Blue quarry sidings	Eden	operational	++				?			++			+	(+)		
M38 - Kirkby Thore works sidings	Eden	operational	++							++			+	(+)		

Table 6.4: Conclusions of the site assessments**Household Waste Recycling Centres and waste treatment facilities (sites identified in policies SAP1 and SAP2)**

AL3 Oldside, Workington (treatment): The site benefits from providing an opportunity to regenerate disused brownfield land for a use that does not clash with those on adjacent land, and which is sufficiently distant from human receptors that any potential risks and impacts will be minimal. Proximity to Workington Port offers the scope for modal shift, including possible export of recyclates (though it would be preferable if these materials could be reprocessed on another part of the site or on one of the other allocations in the town).

AL8 Lillyhall Waste Treatment Centre (treatment): This site offers several benefits in concentrating expanded existing or new waste management facilities on an existing site, for which the suitability for waste use is already proven. The current and possible future waste uses need to be centrally located (i.e. serving a potentially wide catchment) in order to be economically viable, and it has to be accepted that this will mean some wastes have to travel over some distance for management. This does not necessarily mean that the allocation is in conflict with Strategic Objectives and Policies in the Plan, especially if it delivers capacity that does not exist in the county now, and which means that wastes that are currently being exported (generating considerably more 'waste miles') can be managed locally. This outcome is also likely to deliver modest employment growth. The nature of future waste use is not explicit, and any development would require comprehensive assessment of the likely cumulative effects, alongside impacts from existing waste and non-waste uses on the wider estate. The location is a little distant from the main settlements in the coastal fringe and this limits the likelihood of impacts on various sensitive receptors.

The NPPW makes clear that waste facilities are appropriate development alongside other industrial land uses provided they are mitigated satisfactorily and, in this case, recognising that wastes are already being managed on the site.

AL18 Port of Workington (treatment): The allocation would be beneficial if it helps to return parts of the port estate to industrial use, as this will contribute to efficient use of local brownfield land resource while also helping to sustain the economic viability of the port. As an existing employment site, it is particularly suited to waste uses alongside other industrial uses, and provided those uses are comparable in scale to other structures on the site. Introduction of new waste facilities has the scope to increase cumulative impacts of all activity on the site, but this would need to be confirmed at the time any planning application is received.

Otherwise the site is sufficiently distant from most sensitive receptors that the potential for impacts are limited. The main exception to this is the possible effect on water quality at the mouth of the River Derwent and mitigation will be necessary to limit any contribution the site might make to that generated by other activities in the port or in other sites adjoining the river.

AL37 Lillyhall Industrial Estate (HWRC): The allocation is an appropriate location for an HWRC, in terms of possible conflicts with adjacent land uses, and would add to the existing cluster of waste facilities at this location. The size of the plot suggests that there is scope to design it to provide sufficient capacity and range of facilities to meet the anticipated need, while also retaining some of the habitat (tree belts), if this provides a wildlife refuge within the industrial estate. Any impacts on sensitive receptors (human and natural) appear to be limited, but would need further survey to confirm specific issues. However, the main adverse impact of this site is that it relocates recycling facilities largely for domestic use to a suitable site some distance from waste sources, and this is expected to impact on residents' willingness to travel greater distances to use it. Any benefits from providing more and broader capacity could be offset by a reduction in use compared to the two HWRCs it would replace, and this may impact recycling rates. It is also likely to result in an increase in 'waste miles'.

CA11 Willowholme, Carlisle (treatment): The site is fairly centrally located within the city, with good access to the strategic road network, and situated within a sizeable industrial estate, so that development would be compatible with many adjacent uses. Further survey is needed of potential cumulative impacts from dust, emissions, etc., but the site has the advantage of being some distance from human sensitive receptors. Its proximity to sensitive ecological and heritage assets requires further specific survey, prior to submission of a planning assessment, and this could lead to a reduction of the area that could be re-developed in order to provide necessary buffering or visual screening, habitat placement or enhancement. The main drawback to this is that it lies in Flood Risk Zone 3, and although flood defences in the vicinity have been improved since the events of 2009, there is still a risk of inundation; therefore, further development of the site could be limited. As other allocations in the city are proposed for similar waste uses, it is considered likely that the site would fail the Sequential test and could not be supported.

CA30 Kingmoor Road, Carlisle (treatment): This site is well located to serve the city, but has a number of drawbacks. It is located very close to housing and ecological assets, and a nearby low bridge restricts access to the site from one direction. The aim is to expand the site to increase throughput, without changing or broadening its waste management function, as this would appear to offer a reduced risk of increasing any existing impacts or creating new ones as a result of introducing new waste functions and equipment on the site. The height restriction on the rail bridge to the northwest and the desirability of avoiding (or at least minimising) lorry movements through the nearby Conservation Area, suggests that the scope to increase capacity should be limited and controlled by planning conditions applied to vehicle size and routing. This site's close proximity to housing means it is not an appropriate location for an energy from waste facility on any scale.

CA31 Kingmoor Park East, Carlisle (treatment): This site is in a very sustainable location, insofar as it is well situated with respect to local sources of waste and labour supply. It has good access to the strategic road network, scope to exploit nearby railway infrastructure for modal shift, and is remote from a wide range of sensitive receptors and other designations. The site is potentially suitable for a range of enclosed (or possibly open) waste management uses, including the provision of an EfW facility to meet the specific need identified in policy SAP2. Proximity to the nearby sidings provides scope for the modal shift of delivery or removal of materials to/from the site, but the County Council will need to consider whether to restrict waste imports from outside the county, in order to reduce exports, and avoid becoming a net importer of certain wastes.

CO11 Bridge End Industrial Estate, Egremont (treatment): This site has benefits

and drawbacks in equal measure. It is greenfield land of potentially good agricultural quality and its development would extend the built footprint of Egremont slightly. The potential to contribute to flood risk on adjacent land can be addressed with mitigation, and its allocation for employment use at a Key Centre in the district, means that some increase in traffic and visual intrusion from a new industrial building are considered acceptable, provided both are modest in scale. This is likely, as the relatively small size of the plot suggests it would support a modestly-sized facility serving the needs of the district not the wider county. A previous consultation response from the District Council has proposed that the site is too small for waste use, but this is not the case, and it appears to offer scope to provide ancillary capacity away from the coastal towns, which can make an incremental contribution to reduced waste miles and local job supply.

SL1B Land adjacent to Kendal Fell Quarry (HWRC): There is a need to move the existing HWRC in the town centre, where it impacts on a range of properties including those in a Conservation Area, to a peripheral location on a brownfield site; this has been designated as employment land and proposed for a range of waste management uses. In addition, the current site is too small for current operations. Development of the site would shift impacts from an urban to a rural location, resulting in reduced adverse effects on human receptors. While mitigation measures can be used to address the typical impacts associated with an HWRC, development of the site will introduce impacts of noise, odour, increased traffic, dust and emissions to a relatively tranquil rural location (recognising the fact that light industrial units adjacent to the site will generate some of these impacts already). One of the principal benefits would be an incremental contribution to reducing emissions and congestion on roads in the town, while recognising that the site will increase traffic on the road from the town centre. Given the apparent lack of alternative sites within the urban area, this site may have to be developed to relieve the problems associated with the existing HWRC.

Treatment, management, storage and disposal of radioactive wastes (sites identified in policy SAP3)

CO32 Land adjacent to Sellafield (storage/disposal): This site would extend the footprint of the existing Sellafield site, but it would be different in nature. It has the potential to accommodate an engineered voidspace, reserved for lower activity LLW generated by de-commissioning activity on the adjacent complex; however, an alternative use, for storing clean or contaminated construction and demolition waste, is also under consideration. It is not clear whether any voidspace would be excavated or whether it would be a landraise, and this may have implications for temporary or permanent visual impact, though this is not expected to be significant. Regardless, the facility would not be a built structure and this factor, combined with the nature of the wastes, reduces the likely severity of some of the potential impacts. Best practice mitigation would still be required to prevent contamination of surrounding agricultural land, particularly by dust generated during construction, and to prevent any impact on the ground and surface water environments, using mitigation appropriate to the type of materials stored and/or disposed on the site. Some visual impact on nearby properties and on views from the more distant National Park are inevitable, though they would be limited if the facility/landform has a low elevation. Development would also result in permanent loss of some good quality agricultural land, and impacts on local nature conservation designations will require further assessment, though restoration could provide some compensatory

habitat improvement.

It is not considered that the whole of the allocation would be developed; rather, further assessment would narrow down the most suitable area(s) for each waste use, and mitigation of the identified impacts would still be necessary.

The proposal is not as sustainable as allocation CO36, which falls wholly within the existing Sellafield complex.

CO35 Low Level Waste Repository, near Drigg (treatment/management/storage/disposal): The principal reason in favour of safeguarding this site, is to concentrate management capacity on an existing site rather than exposing other localities to similar issues, but recognising that if the facility ceases to accept LLW for storage after 2018 (as per the current planning permission), then any material in storage at that time would have to be relocated to an alternative location. The assessment expects that the existing mitigation measures will persist while the site continues to accept waste for storage (or for future disposal), though further clarification is necessary of the risk of impact on adjacent Natura 2000 designations immediately to the west, and of any additional measures that will be warranted. It also anticipates that the very small area of the site at medium or high flood risk is part of the buffering zone around the edge and that future storage or disposal areas are sufficiently distant from it and protected by existing, viable flood defences.

The LLW Repository is currently the principal facility in the UK receiving such wastes although less than a quarter of deposits originate within the county. The proposal to safeguard extended and possibly increased storage/disposal capacity reflects a national need, which is supportable if the material sent to the site cannot be managed at or close to source.

CO36 Land within Sellafield (treatment/management/storage/disposal): This is a very sustainable allocation, as it would result in wastes being managed or disposed at source, obviating the need to use road or rail to transport them to the a suitable facility, and any risks and impacts that would arise as a result. Compared to allocation CO35, this proposal would accommodate further civil nuclear waste development within the existing complex, limiting the likelihood that it would generate incremental impacts and preventing the extension of risks and impacts to new locations. The principal adverse impacts are potentially on habitats supporting protected species within the site (though there is a risk if pollution were to travel down the River Calder, to species passing up the River Ehen to an SAC), and the need to ensure the integrity of storage or disposal areas.

Minerals and Mineral Safeguarding Areas (sites identified in policy SAP4)

M5 Land adjacent to High Greenscoe Quarry (extension): The allocation, comprising an eastward extension of the existing brick-making mudstone quarry, will continue any existing impacts, bringing some of them closer to a listed building while, at the same time, increasing distance from other properties to the north and west that will have been affected by existing working. The area has, however, been noted as a strategic resource in Policy SP8, which reflects its potential importance in the supply of high quality brick to local and national markets, although a justification of need may be required to support further extension in the light of the potential impacts. The proximity of the quarry to human and wildlife assets necessitates a range of mitigation measures, some of which will reduce the workable area.

M6 Land between Overby and High House Quarries (extension): The sustainability of this site for future extraction of sand and gravel, is justified primarily by the operation of existing quarries to the northeast and southwest, which demonstrate that local impacts are capable of being mitigated effectively and that the location is an important source of aggregate available to markets in the north of the county. The County Council must meet its landbank requirements for the forthcoming seven years, but there is no reason why sites cannot be allocated with the aim of maintaining the landbank in the longer term, though there should be some subsequent review of which ones are the most sustainable locations. Nevertheless, this allocation provides flexibility in safeguarding a location to provide scope to deliver additional resource in the event that reserves at existing sites peter out, or that there is an unanticipated increase in aggregate sales during the Plan period. It is considered appropriate to safeguard the site, insofar as this also provides notice of possible extraction in the longer term, and it is not evident that this has a substantial blighting impact on the surrounding area.

M8 Land adjacent to Cardewmires Quarry (extension): The sustainability of this site for future extraction of sand and gravel, is justified primarily by the operation of the existing quarry, which demonstrates that local impacts are capable of being mitigated effectively and that the location is an important source of aggregate available to markets in the north of the county. The County Council must meet its landbank requirements for the forthcoming seven years, but there is no reason why sites cannot be allocated with the aim of maintaining the landbank in the longer term, though there should be some subsequent review of which ones are the most sustainable locations. Nevertheless, this allocation provides flexibility in safeguarding a location to provide scope to deliver additional resource in the event that reserves at existing site peters out, or that there is an unanticipated increase in aggregate sales during the Plan period. It is considered appropriate to safeguard the site, insofar as this provides notice of possible extraction in the longer term, and it is not evident that this has a substantial blighting impact on the surrounding area.

Impacts are likely to be comparable to those created by the existing workings, though a planning application will need to demonstrate that mitigation applied to the existing workings are capable of dealing with the impacts of workings slightly closer to properties in Dalston.

There is scope to reduce local impacts by using conveyor belts to move aggregates to despatch points on the existing site, and the relatively poor apparent quality of the existing land gives scope for restoration alternatives including BAP priority habitat or possibly additional wetland, to complement that on the existing site. The planning application will need to pay particular attention to the drainage design of the site, to ensure continued free flow of uncontaminated water through the local field drain and stream system, while also maximising the scope for the site to provide temporary – or possibly permanent – flood storage.

M10 Land adjacent to Silvertop Quarry (extension): This allocation is a small scale extension of an existing operational limestone quarry, which provides a unique supply of crushed stone for this part of the county. It is assumed to be worked once the existing reserves are exhausted and, therefore, has limited potential to increase existing impacts of quarrying in the area, though impacts will be prolonged for a modest period. The principal adverse impacts can be addressed through best practice mitigation, though some matters will need further evaluation.

M11 Land adjacent to Kirkhouse Quarry (extension): This site has been proposed for an extension to the existing extraction of sand and gravel. The two proposed Areas of Search constitute an extensive area; further geological and environmental assessments would be undertaken, in order to define a more specific

area, prior to the submission of any planning application. Consideration could be given to excluding that part of M11 through which Milton Beck flows, which is in flood zones 2 and 3, although sand and gravel extraction can be water compatible. The Areas of Search are greenfield and there are significant areas of UK Priority Habitat semi-natural woodland nearby; therefore, a restoration scheme appropriate to this distribution should be considered.

The existing quarry is well located to the road network, with good access to the A689 and A69. Access to the newly proposed areas would be via the existing quarry access, as the minor roads to the south of M11 are narrow.

The closest residential properties, including three Grade II Listed Buildings, are in Farlam, less than 330m south of the site. The site is approximately 750m from the North Pennines AONB, which lies in higher ground to the south and east; therefore, landscape and visual impact assessment is likely to be required.

M12 Roosecote Quarry (new): This site is assessed as largely sustainable, provided that it is initiated only to compensate for the cease of capacity at the existing, operational Roose Quarry. If they were to operate simultaneously, this assessment would change substantially, as this outcome would give rise to cumulative impacts affecting noise, dust, traffic, vibration and possibly visual impact. Its main advantage is judged in planning terms, insofar as it provides a contingency to maintain a supply of aggregate to serve the Furness peninsula and the south west of the county.

The site occupies a more elevated position than the existing Roose Quarry, and this will require re-assessment of the efficacy of any existing mitigation measures, which should not just be transferred without review. Specific issues include visual impacts on Roosecote hamlet and the land to the northeast, and the implications of its elevated location on ground and surface water movement onto surrounding land. Extraction would result in the temporary loss of a modest area of good quality agricultural land, and would have to be justified on the basis of maintaining the county landbank of sand and gravel.

M14 Land adjacent to Kirkby Slate Quarry (extension): This allocation is largely within the existing permitted slate quarry and includes a small eastward extension, which is limited by the wind farm on higher ground to the east. There is the potential to adversely affect the adjacent SSSI, if it is necessary to move into that area, but discussions have taken place with Natural England regarding compensation land, if required, to replace the mire that has formed adjacent to the windfarm access road. Extension of the quarry will provide for the continuing supply of slate, which may be for local (i.e. county-wide) use, to maintain locally distinctive design, or for a wider, national market.

M15 Land adjacent to Peel Place Quarry (extension): Extended working of this site is primarily justified because it is the only sand and gravel source in the south west of the county with the potential to maintain a consistent supply of material over at least part of the Plan period. Other allocations may provide alternative supply from new sources while the County Council has concerns that the only other local resource (Roose Quarry) cannot be relied on to provide a continuing supply of material.

The assessment identifies a number of potential adverse impacts, though it should be recognised that they are assessed without mitigation, and the standard measures used to limit the impact of sand and gravel workings should be sufficient to limit or negate the impacts at this site. The main issue is the exposure of local residents to continued working in the vicinity recognising, however, that extraction is a relatively low-level activity and that noise suppression and other measures can be used to limit its audible impact. Although it is in a rural setting, the site is situated on the A595

and, therefore, has reasonable access to markets for extracted materials.

Given the scope for additional impacts, it is expected that permission would require evidence of the scale of reserves to allow judgement of their importance in meeting the aggregates landbank against the implications of working the site on the surroundings. Consideration will need to be given to landscape and visual impacts, due to the site's proximity to the Lake District National Park.

M16 Land adjacent to Holmescales Quarry (extension): The sustainability assessment for this site turns on the relative priority that must be given to its potential to supply scarce, high-quality roadstone for the county (and the wider, regional market), and the potential impact of road movement of stone off-site, which has been of concern previously. Most of the adverse impacts are quite specific and need further consideration – road traffic impacts on properties in narrow roads along the access routes to the site; and possible impact of groundwater changes on a protected species nearby. However, it is assumed that working will be primarily below ground level and this will contribute to other industry-standard mitigation in limiting other impacts on the surroundings. Against this, it should be acknowledged that the amount of reserves at the site is not known, and that it is not the only source of this material within the county. This matter may depend on the extent to which the County Council rely on roadstone reserves at Ghyll Scaur and Roan Edge quarries in the county.

M18 Land at Stamphill (new): This site was permitted for open cast extraction of gypsum about two decades ago, but that has now lapsed, though a new permission would only be required to continue supply to the Kirkby Thore works in about 15 years' time. The case for permitting the site turns on the importance of continued supply of gypsum products from the works to serve a national market, compared to the potentially substantial local impacts from this method of working in an area not subject to impacts from noise, dust, etc., at present. The potential to maintain jobs in a rural location, distant from larger employment centres, may also be a material consideration.

Development has the scope to create a range of impacts affecting the local community (Long Marton village and other properties surrounding the site), as well as a range of sensitive receptors, particularly a number of highly protected wildlife designations and the species they support. The scale of development suggests that any future re-submitted planning application will need to be supported by a full Environmental Impact Assessment and detailed assessments of impacts and mitigation of wildlife impacts (specifically an Appropriate Assessment if one has not been conducted already).

M24 Derwent Howe Slag Bank (continued extraction): This site potentially provides a source of certain types of secondary aggregate for which there is apparent local demand. The impact of safeguarding it is both positive and negative in roughly equal degrees. The scale of impacts and effectiveness of mitigation measures should not vary significantly over the current position, with the main impacts being noise, vehicle emissions and dust from operations and lorry movements. There is the risk of adverse impact on development sites at the north and south ends of the site; however, it is understood that these applications were submitted at a time when extraction was already occurring and the possibility that this would continue should have been taken into account in assessing the viability (commercially and in planning terms) of these proposals. Continuation of the current mitigation would limit the impacts of continued working, while also progressing towards the eventual closure of extraction and completion of a re-modelled artificial landform to provide natural habitat, recreational space and coastal defence. However, it is acknowledged that all these benefits could be delivered if the site is

restored with no further extraction and, therefore, the assessment of the policy turns on whether demand for the recovered materials justifies any potential additional impacts in the short and medium term.

M27 Land adjacent to Roose Quarry (extension): This site is assessed as largely sustainable. Its main advantage is judged in planning terms insofar as it would maintain a supply of aggregate to serve the Furness peninsula and possibly a limited area beyond, and enable recovery of a mineral resource prior to non-mineral development. Specific issues include groundwater impacts and potential effects on qualifying species for European Sites.

Extraction would result in the temporary loss of a modest area of good quality agricultural land and would have to be justified on the basis of maintaining the county landbank of sand and gravel. If this were to be permanent, due to a subsequent use of the land, this would have to be justified as part of the planning application for that proposal.

M30 Land adjacent to Roan Edge Quarry (extension): This site has the fewest apparent impacts among the proposed allocations. Its relative isolation limits most of the impacts on human receptors and it is located in a position sufficiently distant from possible natural receptors that maintenance of existing mitigation measures may be sufficient to deal with any impacts. It benefits from far better access to the strategic road network than the other proposed roadstone allocation, though it lacks access to alternative modes. It is also recognised as a locally and regionally important source of relatively scarce materials, and restrictions on extraction at other sources outside the county may increase its importance further, making allocation and safeguarding even more important. Impact on users of the right of way crossing the site is the only adverse impact identified; all others are either positive or absent.

Safeguarding existing and potential railheads & wharves (sites identified in policy SAP5)

AL18 Workington port (operational): The allocation safeguards an existing railhead and the port, offering the prospect of both road-rail and road-sea transfer (though the latter is primarily a benefit of allocating the wider port estate). Provided use is limited to existing working hours (to avoid introducing new noise, light, traffic, etc., impacts on the surroundings), there are no evident significant adverse impacts. Any localised impacts in terms of additional traffic would be offset by greater benefits from reduced impacts across the county road network.

AL32 Siddick rail sidings (new): The potential site is an unused area of greenfield land between industrial facilities and which is partly occupied by a small wind farm. The sidings would be developed to allow any new minerals and/or waste activity in the vicinity to move materials to market without using road transport, and this is the principal benefit of the site. As it is a completely new site, it has the potential to introduce new dust, noise and other impacts to a location that does not experience them currently, although it is located in an industrialised urban area. The degree of sustainability turns on the relative level and duration of any adverse impacts on the immediate surroundings when weighed against the potential impacts of moving materials by road, and its impact on the county road network, if the site is not developed for this purpose.

AL38 Innovia rail sidings, Wigton (operational): The assessment has assumed that the rail siding is to be safeguarded for continued use in connection with the manufacturing business and no major proposed changes. It is, therefore, safeguarded for general uses, including the high volume of waste movements that the company processes generate. The safeguarding has no effect on the majority of

the SA objectives, as it represents no change on the current position. The proposal does however have an indirect benefit in safeguarding the railhead used by a large employer and manufacturing business in Cumbria.

AL39 Silloth port (operational): The assessment has assumed that the port is safeguarded in the longer term for a range of uses, not just minerals and waste. The safeguarding has no effect on the majority of the SA objectives, as it represents no change on the current position. The proposal does, however, perform strongly against the economic objectives, as it is safeguarding the operations of the port, and those objectives promoting sustainable transport practices.

BA26 Barrow port (operational): The allocation safeguards an existing railhead and the port, offering the prospect of both road-rail and road-sea transfer (though the latter is primarily a benefit of allocating the wider port estate). Provided use is limited to existing working hours (to avoid introducing new noise, light, traffic, etc., impacts on the surroundings), there are no evident significant adverse impacts. Any localised impacts in terms of additional traffic would be offset by greater benefits from reduced impacts across the county road network. The benefits of continued or increased use of the railhead would be weighed against the likely corresponding increase in certain impacts within the port estate and its surroundings.

CO35 Low-Level Waste Repository rail spur (operational): The allocation safeguards the existing rail interchange facilities, which enable the majority of the LLW brought to the site to arrive by rail. The allocation does not appear to result in any change to the scale or nature of operations, construction of new facilities, etc., and, therefore, it would not result in any new impacts that would need additional mitigation. Continued use of the facility will make a minor incremental contribution to reducing long-distance road movements and the associated impacts.

CO36 Sellafield complex rail spur (operational): The allocation safeguards the existing rail interchange facilities on the seaward side of the Sellafield site, which is used primarily to move radioactive wastes. Allocation does not appear to result in any change to the scale or nature of operations, construction of new facilities, etc., and, therefore, it would not result in any new impacts that would need additional mitigation.

M31 Salthouse rail siding (new): The allocation safeguards the previous loading facility for future use, to serve Ghyll Scaur Quarry or potentially to support other minerals and waste activity in this part of the county. While the infrastructure has been beneficial in allowing non-road movement of a nationally important aggregate, it has potentially significant adverse impacts on a small number of properties along the route, linking the quarry to the railway line, if operations are re-started and if they increase in scale and/or duration. Previous consultation on the site identified that there have been complaints about noise from night-time loading of trains; this would need to be mitigated if the siding is reinstated.

M34 Kingmoor rail sidings (operational): The allocation safeguards existing sidings that are used primarily for a recycling facility operated by Network Rail. In principle, this means that wastes can be brought to the site from across the North West, resulting in beneficial road traffic impacts. The safeguarding maintains the existing use and, therefore, does not appear to give rise to new impacts, recognising that the site has been in long-standing rail use and is adjacent to other industrial areas in an urban location.

M35 Shap Beck Quarry rail sidings (operational): The allocation would safeguard the existing loading facility for the movement of quarried materials to elsewhere in the county or to a wider market, avoiding road transport impacts on local and strategic routes. The policy merely continues the existing use of the site and this is not expected to give rise to any new impacts; those impacts that do exist are

expected to be mitigated effectively as at present.

M36 Shapfell Quarry rail sidings (operational): The allocation would safeguard the existing loading facility, which enables movement of quarried materials to elsewhere in the county or to a wider market, avoiding road transport impacts on local and strategic routes. The policy merely continues the existing use of the site and this is not expected to give rise to any new impacts; those impacts that do exist are expected to be mitigated effectively as at present.

M37 Shap Blue Quarry rail sidings (operational): The allocation would safeguard the existing loading facility, which enables movement of quarried materials to elsewhere in the county or to a wider market, avoiding road transport impacts on local and strategic routes. The policy merely continues the existing use of the site and this is not expected to give rise to any new impacts; those impacts that do exist are expected to be mitigated effectively as at present.

M38 Kirkby Thore gypsum works rail sidings (operational): The allocation would safeguard the existing loading facility, which enables distribution of gypsum-based products from the site to a national market, avoiding road transport impacts on local and strategic routes. The policy merely continues the existing use of the site and this is not expected to give rise to any new impacts; those impacts that do exist are expected to be mitigated effectively as at present.

6.3 Strategic alternatives

6.3.1 This SA report has appraised all sites included in the site allocation policies. No other alternative sites have been assessed. All other sites considered suitable for inclusion in the MWLP have been discounted, through the site allocation process, as unsuitable or undeliverable, and not taken forward for full appraisal in the SA. There are, therefore, no alternative sites for consideration at this stage. The Site Assessments Report, to be published as part of the evidence base to the MWLP, sets out the decisions taken in respect of sites and provides reasons for their withdrawal.

7 CUMULATIVE, SECONDARY AND SYNERGISTIC EFFECTS

- 7.1.1 The SA/SEA process must also consider a range of additional effects that may be secondary (indirect), synergistic or cumulative. Such effects are identified in the detailed assessments in Appendices 3 to 5.
- 7.1.2 They are largely secondary and most of them are positive. For example:
- policies protecting biodiversity assets and designations from intrusive development and impacts, can also benefit landscape character and tranquillity of setting, even though this is not the primary purpose of the policy;
 - several policies have direct implications for reducing road movement of minerals and waste, directly affecting emission levels and congestion. These policies also offer indirect benefits in terms of addressing road safety concerns, both for traffic and pedestrians.
- 7.1.3 An example of a cumulative effect identified, is that on air quality and greenhouse gas emissions, which could arise where waste sites are already clustered. If new development is directed towards these locations, or other areas where there are other industrial land uses, they will generate similar impacts on emissions, traffic, noise, etc. A similar situation also exists for mineral workings, which tend to be clustered as adjacent permissions are worked sequentially, and where co-location of ancillary development can also give rise to traffic, noise, visual and other impacts. These factors might have a negative secondary impact upon amenity in some cases, although the suite of development control policies should help to direct development away from close proximity to sensitive receptors.
- 7.1.4 Overall, the MWLP is assessed as having significant positive cumulative and synergistic impacts. It addresses the protection of the natural and built environments, while providing for a continuing supply of minerals and moving of waste management away from landfill, and seeks to address climate change and transport concerns, by minimising the distance between sources of minerals and waste and the relevant markets or management facilities. Other likely positive synergistic impacts are the reduced consumption of resources and improvements, in terms of air quality and greenhouse gases, through co-locating waste facilities and opportunities for combined heat and power.
- 7.1.5 The MWLP contains a comprehensive set of policies addressing both of these issues, enabling impacts of new development to be controlled and to maximise the benefits from aspects such as biodiversity gain, reducing traffic emissions and providing a supply of minerals to support the future growth.
- 7.1.6 The MWLP also provides a framework for continuing development of the minerals and waste sectors in the county, and while this may not lead to significant levels of job creation, it provides a degree of certainty about the future, which local businesses in these sectors can take into account in future strategic and investment decisions.

8 MITIGATION PROPOSALS

8.1 Mitigation and suggested changes to the MWLP

- 8.1.1 Whilst carrying out the policy and site assessments for the Regulation 18 version of the MWLP, a set of mitigation proposals and suggested changes to the MWLP were proposed; these are summarised in Tables 8.1 and 8.2.
- 8.1.2 The County Council took these into account in preparing the Regulation 19 draft of the MWLP. None of the changes altered the purpose or implementation of the corresponding policy or site allocation. They were, on the whole, matters of clarity and conformity with other policy, particularly at the national level.
- 8.1.3 With regard to sites, even where no specific measures were proposed, any development proposal will be required to comply with all relevant Development Control Policies in the Plan, and all appropriate measures required by permits issued by the Environment Agency (e.g. those relating to waste operations, water discharge and other matters).

Table 8.1: Summary of changes to Strategic and Development Control Policies arising from SA process

Policy	Mitigation/Change	Affects	Importance
General	Review of policies undertaken to refine them, to provide additional local level guidance on the matters that the policies seek to address, and to avoid repeating national planning policy or matters controlled by other regulatory regimes. Any repetition between SP and DC policies was streamlined.	All policies	Moderate
Policy SP9 Marine Aggregates	Clarity provided in the policy and supporting text on the types of development this policy covers (e.g. on shore facilities to enable off shore dredging) and what would be deemed a suitable location for such activity.	Policy	Moderate
SP14 Environmental Assets	Expansion of the policy to specifically cover the assets listed in boxes 8.1 and 8.2, especially relating to environmental assets not covered by European or National designations.	Policy	Fine tuning
SP16 Section 106 Planning Obligations	The second part of the policy used to include a wide range of provisions that may be sought through planning obligation or legal agreements; these points have been moved into the supporting text. Additional clarification was provided on 'long term' and financial guarantees in the text.	Policy	Moderate
DC1 Traffic and Transport	Consideration was given to the addition of waste developments to the second part of the policy, which refers to minerals development being located in areas that would not meet the criteria in the first part of the policy. However, minerals can only be worked where they are found, so it was decided that similar criteria for waste facilities was unnecessary.	Policy	Moderate
DC7 Energy from Waste	Additional detail on the locational criteria for energy from waste facilities, such as AD plants which are classed as biological waste treatment, is included in policy DC9 and paragraph 14.9.	Policy	Fine tuning
DC9 Criteria for Waste Management Facilities	Consideration was given to providing a definition of 'suitable' and 'appropriate' locations in the context of the policy, but this was considered too inflexible as every proposal is unique.	Policy	Fine tuning
DC15 Minerals Safeguarding	Clarification provided that Mineral Consultation Areas also extend to the safeguarded infrastructure set out in SAP5.	Policy	Fine tuning

Table 8.2: Summary of mitigation proposals suggested for Site Allocations arising from SA process

Site	Mitigation Proposed
AL3 – Oldside, Workington (treatment)	<p>The following measures appear prudent and would need to be implemented through the planning application process or in the description of the allocation in the Plan:</p> <ul style="list-style-type: none"> • Traffic: review of impact on existing levels once type and scale of waste use is known. Road safety issues also need to be addressed, as access to the site is likely to cross cycle and pedestrian routes. • Dust, noise, etc.: assess impact once type and scale of waste use is known. Proximity to biodiversity assets and recreational uses implies that the site should only be allocated for enclosed waste use, unless there is evidence to show that none of these impacts would arise. • Drainage: evaluation and appropriate mitigation (filter traps or similar) would need to be applied through the planning application process. • Ecology: some of the site could be retained to support habitat for the Small Blue butterfly. This form of mitigation may limit the size of the facility on the land and/or the scope to co-locate complementary waste facilities on a single site.
AL8 – Lillyhall Waste Treatment Centre (treatment)	<p>The priority is likely to be to assess the suitability and efficacy of the existing mitigation measures (including issues such as drainage) and to determine whether additional ones are needed to deal with impacts arising from any new waste uses on the site. This is likely to be addressed in seeking a new or varied Environmental Permit from the Environment Agency. It may also be prudent to require a Stage 1 contaminated land assessment if piling work will occur, and a walkover survey by an ecologist to check for any signs that parts of the site that will re-developed are being used by protected species.</p>
AL18 – Port of Workington (treatment)	<p>It would be prudent to refer to the need to address the following measures in the description of the allocated site, though most would be evaluated at the planning application stage:</p> <ul style="list-style-type: none"> • Traffic: cumulative traffic impact; routeing agreement for access to the site within the town; assess safety impact on cycle routes; possible need for improvements at junction at the entrance to the port estate. • Dust, noise, etc.: scope to permit open storage and any mitigation necessary (proximity to open water would need to be taken into account). • Drainage: need for SuDS, filter traps and other mitigation to limit risk of contamination by run-off and overland flow. • Ecology: retention of some habitat to support the Small Blue butterfly and other rare species as

Site	Mitigation Proposed
	there appears to be sufficient vacant land to meet the waste need and provide this mitigation.
AL37 – Lillyhall Industrial Estate (HWRC)	<p>It would be prudent to refer to the need to address the following measures in the description of the allocated site, though most would be evaluated at the planning application stage:</p> <ul style="list-style-type: none"> • Dust, odours, etc.: should only require standard measures to limit impacts on surrounding land uses. • Ecology: Phase 1 habitat survey to assess wildlife use of site and scope for (and value in) retaining trees on the site; will also require protected species, invertebrate and reptile surveys. • Contamination: it may be appropriate to require a Stage 1 desk survey of land contamination (i.e. focusing on previous land uses and likely sources and types of contamination).
CA11 – Willowholme, Carlisle (treatment)	<p>Principal measure is to restrict development to enclosed waste use, possibly requiring internal storage of incoming material and any baled (or similar) outputs, in order to limit impacts on adjacent biodiversity assets. Possibly also require buffer zone along the north western boundary to reduce risks of impacts to the river and provide scope for biodiversity improvement and visual screening of the site from the adjacent footpath.</p> <p>Additional assessments for protected species, heritage impacts on the adjacent historic ford, and of cumulative traffic impacts on the junction of the access road into the estate with the A595.</p>
CA30 – Kingmoor Road, Carlisle (treatment)	<p>Any change in the throughput or the range of waste activities performed should result in a review of whether the existing mitigation measures would be appropriate and effective for the intended future use. A survey of the use of the site by protected species is necessary. Appropriate mitigation of land contamination risks, particularly in terms of disturbance and excavation of material that could then find its way into surface watercourses is also necessary, as is the need to prevent water running off the site and percolating into the soil beneath, carrying contaminants in solution into adjacent watercourses or uncontaminated greenfield land.</p>
CA31 – Kingmoor Park East, Carlisle (treatment)	<p>Mitigation requirements are primarily best practice requirements for supporting the detail of waste developments and will probably include those required by the local planning authority's validation lists. A planning permission will need to be supported by ecological assessments to check on use/occupancy of the site by various protected species. Assessment of cumulative impact on traffic on the Carlisle Northern Development Route is also advisable.</p>
CO11 – Bridge End Industrial Estate, Egremont (treatment)	<p>The small scale of the site should limit the impacts and best practice mitigation should be satisfactory, subject to assessment of any eventual development proposal. Specific surveys will be needed of wildlife use of the site and drainage requirements, to limit impact of runoff on land to the west.</p>

Site	Mitigation Proposed
SL1B – Land adjacent to Kendal Fell Quarry (HWRC)	<p>Standard mitigation measures used for this type of facility (netting, damping down paved/concrete areas during dry weather, surface drainage management with filter traps) should deal with the main generic impacts. Some additional screening along the western edge of the site might be considered to limit visual impact from the National Park although the site lies alongside a disused quarry in the Park, which could also be considered unsightly. The junction of the access road with Underbarrow Road may need to be re-designed, and measures will be needed to protect any pedestrians using the public footpath that runs alongside the access road, which is paved but narrow, and which is assumed to carry very little traffic at present.</p> <p>As the site is currently unused, it would be prudent to require an ecological survey to check for wildlife use or occupancy of the site. The site is sufficiently large (estimated to be 2ha) that space will be available for ecological mitigation and/or habitat creation which, ideally, could provide additional visual screening.</p>
CO32 – Land adjacent to Sellafield (radioactive waste)	<p>The nature of the facility is undecided at present, but it is understood that it may require an earth-bunded landform (and subsequent earth-capping during restoration) to include measures to prevent movement of water away from the feature and other materials being carried or blown off the site. Mitigation measures should reflect whether the facility eventually received LLW or non-radioactively contaminated wastes. Specific measures would be needed during construction to prevent dust and other material being blown onto adjacent agricultural land. The likely low elevation of the facility and containment using bunds is likely to be sufficient to mitigate the principal visual impacts. Further consideration would also need to be given to the impact on protected species and the scope for habitat compensation if part or all of the site is developed.</p>
CO35 – Low Level Waste Repository, near Drigg (radioactive waste)	<p>Given the nature of the existing activity on the site, it is reasonable to expect that the existing mitigation measures are of the highest technical specification and rigidly enforced. Nevertheless, it would be prudent to review their effectiveness and the possible need for additional facilities when evaluating any proposal to continue accepting LLW at this site. Further clarification is needed of the risks to the SAC and appropriate mitigation that may be required.</p>
CO36 – Land within Sellafield (radioactive waste)	<p>Any facility would need to be mitigated using measures that are at least as effective as those already in place, especially if material is stored or disposed in an engineered landform. Location should be prioritised towards areas of the site that have been cleared, but which are not in use at present. Development on wooded land along the eastern border and the plot just north of the mouth of the River Calder should be avoided to protect biodiversity assets. Open “greenfield” plots</p>

Site	Mitigation Proposed
	on the north side of the site would need to be assessed for use by protected species.
M5 – Land adjacent to High Greenscoe Quarry (extension)	Existing mitigation measures should be sufficient to deal with operational impacts, though a future planning application will need to provide evidence to this effect. Additional survey may be needed to check for use or occupancy of the extension land by any of the various local protected species. Visual mitigation of impacts on the listed farmhouse to the east will be necessary, and it would be advisable to evaluate the effect of water drainage off the site on adjacent land.
M6 – Land between Overby and High House Quarries (extension)	Mitigation should be the same as that provided for the existing workings (assuming this addresses all the impacts). This is assumed to include use of buffering, bunding, visual screening, noise suppression on compressors and other equipment, wheel washing and dust suppression during dry periods, etc. Specific mitigation will be needed to deal with impacts on Hards Farm, which lies beyond the southeast edge of the allocation.
M8 – Land adjacent to Cardewmires Quarry (extension)	Mitigation should be the same as that provided for the existing workings (assuming this addresses all the impacts). This is assumed to include use of buffering, bunding, visual screening, noise suppression on compressors and other equipment, wheel washing and dust suppression during dry periods, etc. Specific mitigation will be needed to deal with impacts on Cardew Hall beyond the southwest edge of the allocation.
M10 – Land adjacent to Silvertop Quarry (extension)	Existing mitigation measures should be sufficient to deal with operational impacts, though a future planning application will need to provide evidence to this effect. Specific mitigation may be needed to address localised impacts on protected species and the AONB (visually) and additional surveys (and mitigation proposals as necessary) will be required in support of any future application.
M11 – land adjacent to Kirkhouse Quarry (extension)	Existing mitigation measures should be sufficient to deal with operational quarrying impacts, though a future planning application will need to provide evidence to this effect. This is assumed to include use of buffering, bunding, visual screening, noise suppression on compressors, and other equipment, wheel washing and dust suppression during dry periods, etc. A programme of phasing would need to be agreed in order to limit possible cumulative impacts with the existing quarry. Surveys may be needed to check for use or occupancy of the land by any of the various local protected species. Mitigation may be required for loss of woodland.
M12 – Land adjacent to Roosecote Quarry (new)	The key mitigation requirement would be a condition limiting scope to work the site simultaneously with the existing quarry, in order to limit possible cumulative impacts and to avoid other possible issues (including road safety implications of traffic moving from one site to the other, across Rampside Road). Other best practice mitigation measures appropriate to sand and gravel extraction would be required. Specific consideration should be given to site drainage and its

Site	Mitigation Proposed
	impact on surrounding agricultural land and ecological assets.
M14 – Land adjacent to Kirkby Slate Quarry (extension)	Mitigation measures in use across the existing site should be replicated. Compensation land, if there is loss of mires in the SSSI, would be necessary.
M15 – Land adjacent to Peel Place Quarry (extension)	Impacts on surrounding and more distant sensitive receptors will require standard mitigation measures including: bunding, buffering and vegetational screening to limit visual, noise and some dust impacts; wheel washing and dust dampening of open areas during dry periods; restricting the height of any structures on the site to a single storey to limit visual impact; noise suppression on equipment; possible use of conveyors to move material around the site to reduce vehicle noise and emissions. It is assumed that the existing workings use the road linking Hallsenna to the A595 for access and that this will continue to be used, in conjunction with any conditions restricting the times of day, number and routeing of movements to and from the site. It would be prudent to require phased working of the site, so that the whole area is not exposed or excavated at the same time, in order to limit the visual impact (particularly from the National Park).
M16 – Land adjacent to Holmescales Quarry (extension)	Use of best practice mitigation measures, in combination with excavation below ground-level, should address most of the generic impacts resulting from this site. Specific survey and mitigation requirements needed to address possible groundwater and inevitable traffic impacts.
M18 – Land at Stamphill (new)	This development would require very extensive mitigation to address a range of potentially significant impacts that do not affect the surroundings at present. The use of conveyor belts to carry material to the nearby works only addresses one of several issues. Open cast working would necessitate best practice mitigation to address impacts from dust (blow-off and in solution), noise (primarily plant as conveyors are relatively quiet), vibration (though this may be negligible as the worked area is surrounded by a buffer zone) and water quality. Archaeological records imply a desk or field survey may be necessary, as this is an undisturbed greenfield site.

Site	Mitigation Proposed
M24 – Derwent Howe Slag Bank (safeguarding)	Restrict the area under working at any one time to limit the scale of on-site (e.g. dust blow-off risk) and off-site (e.g. visual and traffic) impacts. Agree a boundary to the area for future extraction, to provide a buffer between the area being worked and adjacent land uses and receptors, and to ensure the viability of the western side of the site for coastal defence is not compromised.
M27 - Roosecote Quarry (extension)	The key mitigation requirement would be to protect groundwater from any intrusive quarrying methods. A programme of phasing would need to be agreed, in order to limit possible cumulative impacts with the existing operations. The water bodies would require surveying for the presence of Great Crested Newts. Surveys also required for birds from the nearby Special Protection Area likely to use the site for loafing, feeding, etc. Other best practice mitigation measures appropriate to sand and gravel extraction, would be required.
M30 – Land adjacent to Roan Edge Quarry (extension)	Continuation of best practice mitigation used in the existing quarry should be sufficient to deal with the principal impacts. The bridleway/footpath running between the existing quarry and the extension will need to be relocated, possibly permanently. Additional consideration may need to be given to the effect of additional below-ground level working on the groundwater regime and pattern of runoff down the slope to the east of the extension, and survey of the site to check for use by protected species may also be warranted.
AL18 – Workington port (operational)	None, provided use for minerals and waste purposes does not result in additional use of the facility outside existing hours as this would result in new noise, light, traffic, etc. impacts on nearby receptors.
AL32 – Siddick rail sidings (new)	There is limited scope to minimise noise and similar impacts of transferring material to rail and its movement off site. The principal requirement will be to limit movements and other activity on the sidings to appropriate times of day, to minimise impacts on the limited number of nearby properties. Additional surveys for protected wildlife species in the vicinity, and of heritage assets would also be required.
AL38 – Innovia rail sidings (operational)	None, provided use for minerals and waste purposes does not result in additional use of the facility outside existing hours, as this would result in new noise, light, traffic, etc. impacts on nearby receptors.
AL39 – Silloth port (operational)	None, provided use for minerals and waste purposes does not result in additional use of the facility outside existing hours, as this would result in new noise, light, traffic, etc. impacts on nearby receptors.
BA26 – Barrow port (operational)	None, provided use for minerals and waste purposes does not result in additional use of the facility outside existing hours, as this would result in new noise, light, traffic, etc. impacts on nearby

Site	Mitigation Proposed
	receptors.
CO35 – Low-Level Waste Repository rail spur (operational)	None, other than continuing use of any measures currently applied.
CO36 – Sellafield complex rail spur (operational)	None, other than continuing use of any measures currently applied.
M31 – Salthouse rail siding (new)	Adverse noise impacts could be reduced or eliminated by using a conveyor belt to move material from the quarry, if the site reopens for this purpose, and provided that permission can be obtained from landowners. If the site is to become a permanent facility for other uses, then it will require further investigation of mitigation measures to deal with other road transport impacts.
M34 – Kingmoor rail sidings (operational)	None, provided continued use does not result in additional use of the facility outside existing hours, as this would result in new noise, light, traffic, etc. impacts on nearby receptors.
M35 – Shap Beck Quarry rail sidings (operational)	None, provided existing mitigation is effective and that use of the rail loading facility will not increase in scale or occur at different times of the day, when new impacts might arise.
M36 – Shapfell Quarry rail sidings (operational)	None, provided existing mitigation is effective and that use of the rail loading facility will not increase in scale or occur at different times of the day, when new impacts might arise.
M37 – Shap Blue Quarry rail sidings (operational)	None, provided existing mitigation is effective and that use of the rail loading facility will not increase in scale or occur at different times of the day, when new impacts might arise.
M38 – Kirkby Thore Gypsum Works rail sidings (operational)	None, provided existing mitigation is effective and that use of the rail loading facility will not increase in scale or occur at different times of the day, when new impacts might arise.

9 MONITORING THE PLAN

9.1 Monitoring requirements

- 9.1.1 The SEA Directive requires that “member states shall monitor the significant environmental effects of the implementation of plans or programmes... in order, inter alia, to identify at an early stage, unforeseen adverse effects, and be able to undertake appropriate remedial action” (Article 10.1) and that the environmental report should provide information on “a description of the measures envisaged concerning monitoring”.
- 9.1.2 An additional requirement to keep waste planning issues under review arises from the Waste Framework Directive¹² and is clarified in national guidance¹³. This is required in order to support the Waste Management Plan for the area in moving waste up the waste hierarchy and ensuring that the right waste facilities are provided in the right place and at the right time.
- 9.1.3 The requirement to submit an Annual Monitoring Report (AMR) to the Secretary of State has been removed by the Localism Act 2011, but the overall duty to monitor Local Plans remains. It is now a matter for each council to decide what to include in their monitoring reports, while ensuring that they are prepared in accordance with relevant UK and EU legislation¹⁴. Planning Policy Guidance¹⁵ provides specific advice on the use of Annual Monitoring Reports to review the performance of the Local Plan, enable continuing development of the evidence base for assessing the need for new waste management facilities and assessment of whether waste policy objectives are being met.
- 9.1.4 Monitoring proposals should be designed to provide information to highlight specific issues and help decision-making. It is not necessary to monitor everything or to have separate monitoring arrangements for each of the purposes above.

9.2 Monitoring

- 9.2.1 Monitoring should be focussed on the significant sustainability effects that may give rise to irreversible damage (with a view to identifying trends before such damage is caused) and the significant effects where there is uncertainty in the SA and where monitoring would enable preventative or mitigation measures to be taken.
- 9.2.2 Whilst the SA has not identified many potentially significant adverse effects, this is on the basis of the following:

¹² European Union Waste Framework Directive (2008/98/EC)

¹³ Guidance for local planning authorities on implementing planning requirements of the European Union Waste Framework Directive (2008/98/EC): DCLG December, 2012

¹⁴ The Environmental Assessment of Plans and Programmes Regulations, 2004

¹⁵ Planning Policy Guidance, paragraph 054, chapter 28 (ID: 28-054-20141016)

(i) that given other regulatory regimes, and planning provisions, mineral and waste sites would be constructed and operated in accordance with environmental and health and safety regulations; and

(ii) that the Development Control Policies will be implemented.

9.2.3 Given both this, and adherence to the precautionary principle, it is suggested that the following potentially adverse effects arising from implementation of the Local Plan and its policies, including cumulative effects, should be monitored where data is available:

- effects on biodiversity and sites designated for their species or habitat value;
- effects on protected landscapes and on heritage assets;
- effects on the water environment, including water quality and water resources;
- effects on land and soil quality;
- effects on the built environment including flood risk;
- effects on economic growth, including any related to under provision of waste facilities or minerals;
- effects on health and well-being, particularly associated with the transport of minerals and waste; and
- effects on greenhouse gas emission levels, particularly associated with 'mineral and waste miles'.

9.2.4 Equally, where potentially significant beneficial effects have been identified, it is suggested that the following should also be monitored:

- the proportion of waste being managed in accordance with the waste hierarchy, following the development of appropriate new waste management facilities;
- the extent to which mineral resources are being managed sustainably and conserved, including the production of secondary and recycled aggregates;
- the economic benefits associated with the development of new minerals development and waste management facilities.

9.3 Monitoring provisions in the Local Plan

9.3.1 The County Council's current monitoring arrangements include the Local Aggregates Assessment and the AMR. The latter uses a number of sources to collate information on a range of indicators, and implement the monitoring framework in the adopted Core Strategy and Generic Development Control Policies DPD's.

9.3.2 The indicators used in the AMR include the following:

- sales of primary land won aggregates broken down into sand and gravel, crushed rock for general aggregate use, and high and very high specification roadstones;
- aggregate reserves and landbanks;

- production of secondary and recycled aggregates;
- landings of marine dredged aggregates;
- capacity of new waste management facilities by type;
- total waste arisings and management methods;
- imports and exports of waste from Cumbria;
- municipal waste arisings and management methods;
- change in priority habitats and species (by type); and
- change in areas designated for their intrinsic environmental value, including sites of international, national or local significance.

9.3.3 The AMR also analyses planning decisions, to assess what policies are being used, how the Strategic Objectives are being addressed, and whether additional policies or policy changes should be considered.

9.3.4 The current monitoring framework is based on Table 11.1 in the adopted Core Strategy. The MWLP has developed a revised monitoring and implementation framework, which is set out in chapter 17 of the MWLP. This framework will monitor the MWLP and the significant effects of its implementation in line with SA/SEA requirements. Indicators have been developed to enable the periodic review of the evidence base, including through the LAA and the Cumbria Waste Needs Assessment, and assess whether changes to those policies, or additional site allocations should be considered through the vehicle of a partial review of the Local Plan.

10 NEXT STEPS

10.1.1 The County Council is inviting representations on this SA/SEA Report in parallel with consultation on the Regulation 19 draft MWLP.

10.1.2 The period in which you can make representations on this report will be the same as that for commenting on the MWLP and will be advised separately.